S200

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Assembly
California Legislature

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LLOYD E. LEVINE
ASSEMBLYMEMBER, FORTIETH DISTRICT
CHAIR, UTILITIES AND COMMERCE COMMITTEE

April 17, 2006

Mr. Dwight Sanders
California State Lands Commission
Division of Environmental Planning and Management
100 Howe Avenue, Suite 100-South
Sacramento, CA 95825-8202

RE: Cabrillo Port LNG Terminal

Dear Mr. Sanders:

As a member of the California Assembly I represent a constituent base of over 400,000 San Fernando Valley residents. Most of these constituents rely upon the use of clean burning and fuel efficient natural gas for a variety of residential, commercial, and industrial applications.

As Chair of the Assembly Utilities and Commerce Committee I am especially sensitive to the critical role that natural gas plays in our state's and our region's clean air strategies. I am writing today to affirm my support for LNG to serve both California's clean energy and clean air goals.

We know LNG to be a safe and clean energy form. It is simply natural gas. And, we know it can be delivered as natural gas right into a gas utility's pipeline system. LNG deliveries that connect to the existing gas utility system will increase available gas supply and act as a competitive balance to moderate prices of natural gas transported to California from other areas. It also diversifies gas supply, contributing to enhanced reliability.

I continue to believe that California needs LNG.

Sincerely,

Lloyd Levine

Assemblymember Lloyd Levine

S200-1

S200-1
Your statement is included in the public record and will be taken into account by decision-makers when they consider the proposed Project.

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Assembly
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PEDRO NAVA
ASSEMBLYMEMBER, THIRTY-FIFTH DISTRICT

S204

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April 19, 2006

Dwight E. Sanders
California State Lands Commission
100 Howe Avenue, Suite 100-South
Sacramento, CA 95825

RE: Cabrillo Port Liquefied Natural Gas Project

Dear Mr. Sanders,

As the elected Assemblymember for the 35th District, which includes Ventura and much of Oxnard, I am sensitive to the concerns that my constituents have expressed regarding the above-referenced proposal by BHP Billiton, including air quality, noise emissions, water quality and security issues. Furthermore, our coastline is very precious and must be protected for future generations. Industrializing it with LNG facilities will cause irreparable harm and endanger our lives, homes, marine sanctuaries, and sensitive ecosystems. S204-1

I am very concerned that there is a lack of a regulatory mechanism in place to ensure that California is being offered the best available technology, maximum benefit, and minimum environmental impact. The current process does not allow for real competition between proposals, and instead we find ourselves in a "first-come, first approval" situation with no true evaluation based on the merits of competing projects. Due to the lack of a coherent policy as mentioned above, several issues are of great concern to the community and the state, among them: S204-2

- The Cabrillo Port Project proposed by BHP Billiton would use an experimental, untested, and unproven technology to store and regassify approximately 100 million gallons of LNG. Thus, exposing the local community to potentially catastrophic accidents. S204-3
- Because the proposed LNG facility is a highly visible and easily identified landmark, it would be very susceptible to terrorist attack. According to the Congressional Research Service's (CRS) report for Congress, ***Liquefied Natural Gas Import Terminals: Siting, Safety and Regulation***, January 28, 2004, "In light of the terror attacks of September 11, 2001, Congress is concerned about the security of existing LNG infrastructure and the security implications of a major increase in LNG imports to the United States." S204-4

S204-1
The Project has been modified since issuance of the March 2006 Revised Draft EIR. See Section 1.4.2 for a summary of Project changes. Section 4.6.4 discusses the health effects attributed to air pollutants and includes revised impacts and mitigation measures. Section 4.14.4 discusses noise impacts. Section 4.18.4 discusses water quality. Section 4.8.4 discusses coastal ecosystems. Section 4.2 discusses public safety. Section 4.2.7.3 and Appendix C3-2 contain information on LNG carrier security. Section 4.2.7.6 and the Independent Risk Assessment in Appendix C provide additional information on security.

S204-2
Section 1.1.1 contains information on the process used by the Deepwater Port Act (DWPA) of 1974, as amended, which establishes a licensing system for ownership, construction and operation of deepwater port (DWP) facilities. As discussed, the role of the Maritime Administration (MARAD) is to balance the Congressionally imposed mandates (33 U.S.C. 1501) of the DWPA, including those to protect the environment; the interests of the United States and those of adjacent coastal states in the location, construction, and operation of deepwater ports; and the interests of adjacent coastal states concerning the right to regulate growth, determine land use, and otherwise protect the environment in accordance with law.

At the same time, the California State Lands Commission (CSLC) is reviewing the application to ultimately decide whether to grant the Applicant a lease to cross State sovereign lands. As described in Section 1.2.1, "[t]he CSLC authorizes leasing of State lands to qualified applicants based on what it deems to be in the best interest of the State in compliance with the [California Environmental Quality Act]."

Section 1.1.2 contains information on the Governor of California's role in DWP licensing. As discussed, MARAD may not issue a license without the approval of the Governor of the adjacent coastal state (33 U.S.C. 1503(c)(8)). Section 1.1.3 contains information on the role of the U.S. Environmental Protection Agency (USEPA): "[t]he Port must meet all Federal and State requirements and is required to obtain air and water discharge permits from the USEPA." Section 1.2.1 contains additional information on Federal and State responsibilities. Section 1.1.4 contains information on the role of the CSLC to consider whether or not to grant a lease of State lands for the subsea pipelines. The lease may also include conditions relating to those parts of the Project not located on the lease premises. As described in Section 1.3.1, one of the main

purposes of the EIS/EIR for MARAD is to "(f)acilitate a determination of whether the Applicant has demonstrated that the DWP would be located, constructed, and operated in a manner that represents the best available technology necessary to prevent or minimize any adverse impacts on the marine environment."

The USEPA, the U.S. Department of Commerce, including NOAA's National Marine Fisheries Service (NMFS or NOAA Fisheries Service), and the U.S. Department of the Interior, including the Minerals Management Service and the U.S. Fish and Wildlife Service, are cooperating Federal agencies.

As discussed in Section 1.3.2, for significant impacts, the CSLC must adopt a Statement of Overriding Considerations to approve the Project if the specific economic, legal, social, technological, or other benefits of a proposed project outweigh the unavoidable adverse environmental effects (State CEQA Guidelines section 15093(a)). After the CSLC's decision, other State and local agencies may take actions on the Project, i.e., on related permits or necessary approvals. These agencies include the California Public Utilities Commission, the California Coastal Commission, the California Department of Fish and Game, the California Air Resources Board, the Los Angeles Regional Water Quality Control Board, the California Department of Transportation, the City of Oxnard and/or Ventura County (for the onshore part of the Project within the coastal zone), and local air quality control districts such as the Ventura County Air Pollution Control District and the South Coast Air Quality Management District. Section 1.4.2 contains information on the changes to the proposed Project that have been made during the environmental review process.

Section 1.5 contains information on opportunities for public comment. After the MARAD final license hearing, the public will have 45 days to comment on the Final EIS/EIR and the license application. The Federal and State agencies will have an additional 45 days to provide comments to the MARAD Administrator. The Administrator must issue the Record of Decision within 90 days after the final license hearing. The CSLC will hold a hearing to certify the EIR and make the decision whether to grant a lease. The California Coastal Commission will also hold a hearing. Comments received will be evaluated before any final decision is made regarding the proposed Project.

California Senate Bill 426 (Simitian), which would have created a ranking process for different LNG projects, was re-referred to the California Assembly Committee on Utilities and Commerce on August 24, 2006. As of November 30, 2006, the Legislature's

Current Bill Status shows it as "From Assembly without further action," which ended the consideration of the bill during the 2005-06 Legislative Session.

S204-3
Section 2.1 contains information on design criteria and specifications, final design requirements, and regulations governing the construction of the FSRU. The Cabrillo Port must be designed in accordance with applicable standards, and the U.S. Coast Guard has final approval. Section 4.2.4 contains information on Federal and State agency jurisdiction and cooperation. The Deepwater Port Act specifies regulations that all deepwater ports must meet; Section 4.2.7.3 contains information on design and safety standards for the deepwater port. Section 4.2.8.2 contains information on pipeline safety and inspections. Impact EJ-1 in Section 4.19.4 addresses additional pipeline design requirements in areas of low-income and minority communities. The EIS/EIR's analyses have been developed with consideration of these factors and regulations and in full conformance with the requirements of NEPA and the CEQA.

S204-4
Table 4.2-2 and Sections 4.2.6.1 and 4.2.7.6 contain information on the threat of terrorist attacks. Section 4.2.7.6 and the Independent Risk Assessment (Appendix C1) contain information on public safety impacts from various incidents at the FSRU. The analysis indicates that the maximum impact distance of an accident or intentional incident would involve a vapor cloud dispersion extending 6.3 nautical miles (7.3 miles) from the FSRU. The FSRU would be located approximately 12.01 nautical miles (13.83 miles) offshore; therefore, consequences of an accident or intentional incident involving LNG transport by carrier and storage on the FSRU would extend no closer than 5.7 nautical miles (6.5 miles) from the shoreline.

- The California Energy Commission has not conducted a specific LNG Needs Assessment. Requests for California Public Utilities Commission evidentiary hearings have been rejected.

- Natural gas is a direct competitor of renewable technologies. BHP Billiton's proposal will undercut California's effort to increase the role of renewable energy. The LNG facility will not act as a bridge to renewable energy but rather as a roadblock. Instead of supporting construction of infrastructure that will shackle us to more fossil imports from volatile areas of the globe, California would be better served to encourage capital investments in energy infrastructure that helps us make the transition to domestically available renewable energy sources.

- There is no guarantee that LNG unloaded in California will stay in California. California will have to compete with everyone else when bidding on contracts for LNG imports. Also, there is no guarantee that the cost of natural gas will decrease for California residents, especially residents of the surrounding community.

- LNG increases the emission of carbon dioxide (CO2), the primary cause of global warming, into the atmosphere. The process of transporting and converting LNG is energy intensive, thus exposing the local community to substantial amounts of LNG related pollutants. According to the draft EIR, there is a "commitment to achieve air emissions reductions." A commitment is not a guarantee and there is no requirement on behalf of BHP Billiton to be good stewards of the environment considering that BHP Billiton already has a poor environmental track record in the United States and abroad.

- Hidden costs that taxpayers may have to incur for security costs of these facilities are unknown. State residents of Massachusetts absorb 47% of the security costs for the LNG facility in Boston.

I believe that all projects with potential impacts to the local community and the biologically significant and economically important California coastline deserve a high level of scrutiny and analysis. It is not unreasonable, then, to require a very high level of scrutiny on the Cabrillo Port project, which is a large-scale proposal on the coast that is so far untested and unproven. Based on my concerns outlined above, I must oppose this project.

Thank you for your consideration of my comments.

Sincerely,

Pedro Nava
Assemblymember, 35th District

cc: Paul D. Thayer, Executive Officer, California State Lands Commission
Lieutenant Governor, Cruz Bustamante, Member, California State Lands Commission
State Controller, Steve Westly, Member, California State Lands Commission
Finance Director, Micheal C. Genest, Member, California State Lands Commission

S204-5

S204-6

S204-7

S204-8

S204-9

S204-10

S204-5
Section 1.2.1 contains information on the USCG and State formal hearings.

Following publication of this Final EIS/EIR, MARAD, the USCG, and the CSLC will serve public notice and hold final hearings. MARAD and the USCG will hold a final DWPA license hearing in accordance with 33 CFR 148.222. After the final license hearing is concluded by MARAD and the USCG, the Commandant (CG-3PSO), in coordination with the Administrator of MARAD, will consider any requests for a formal hearing as specified in 33 CFR 148.228. The CSLC will hold a hearing to certify the EIR and make the decision whether to grant a lease.

As discussed in Section 1.2.1, the California Energy Commission (CEC) and California Public Utilities Commission (CPUC) must "carry out their respective energy-related duties and responsibilities based upon information and analyses contained in a biennial integrated energy policy report adopted by the CEC." Section 1.2.1 also describes the public process that is used to develop the Integrated Energy Policy Reports to ensure that California's energy-related interests and needs are met.

Section 1.5 contains information on opportunities for public comment. After the MARAD final license hearing, the public will have 45 days to comment on the Final EIS/EIR and the license application. The Federal and State agencies will have an additional 45 days to provide comments to the MARAD Administrator. The Administrator must issue the Record of Decision within 90 days after the final license hearing. The CSLC will hold a hearing to certify the EIR and make the decision whether to grant a lease. The California Coastal Commission will also hold a hearing. Comments received will be evaluated before any final decision is made regarding the proposed Project.

S204-6
Sections 1.2.2, 1.2.3, 1.2.4, 3.3.1, 3.3.2, and 4.10.1.3 contain information on the need for natural gas, the role and status of energy conservation and renewable energy sources, and the California Energy Action Plan.

Sections 3.3.1 and 3.3.2 address conservation and renewable energy sources, within the context of the California Energy Commission's 2005 Integrated Energy Report and other State and Federal energy reports, as alternatives to replace additional supplies of natural gas.

As stated in Section 4.6.2, BHPB has stated that 18 entities have executed letters of interest in the possible purchase of natural gas when it becomes available from Cabrillo Port. These prospective customers represent a range of natural gas purchasers including utilities, electricity generators, cogenerators, manufacturers, and trade groups.

S204-7
The Project has been modified since issuance of the March 2006 Revised Draft EIR. See Section 1.4.2 for a summary of Project changes. Section 4.6.1.3 contains a revised discussion of Project emissions and proposed control measures. Section 4.6.4 discusses the health effects attributed to air pollutants and includes revised impacts and mitigation measures. Sections 4.6.1.4 and 4.6.2 contain information on Project emissions of greenhouse gases and recent California legislation regarding emissions of greenhouse gases.

The Applicant is required to adhere to all applicable Federal, State, and local laws, regulations, and permit requirements in the execution of all phases of the Project. Section 4.2.6 of the Revised Draft EIR states, "The environmental and occupational safety record for the Applicant's worldwide operations, including, for example, mining ventures overseas, was not considered in evaluating potential public safety concerns associated with this Project because such operations are not directly comparable to the processes in the proposed Project." The conclusions in the EIS/EIR are based on the analyses of potential environmental impacts of the proposed Project and the implementation assumptions stated in Section 4.1.7. However, the Applicant's safety and environmental record will be taken into account by decision-makers when they consider the proposed Project. Section 4.2.6 addresses the Applicant's safety and environmental record. The Applicant is required to adhere to all applicable local, State, and Federal laws, regulations, and permit requirements in the execution of all phases of the Project.

S204-8
Section 4.2.5 contains information on liability in case of an accident and reimbursement for local agencies.

S204-9
See the response to Comment S204-3.

S204-10
Your statement is included in the public record and will be taken

into account by decision-makers when they consider the proposed Project.

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NORMA CAMPOS KURTZ
DISTRICT DIRECTOR

California State Senate

SENATOR
JOSEPH L. DUNN
THIRTY-FOURTH SENATE DISTRICT

STANDING COMMITTEES
CHAIR, JUDICIARY
CHAIR, BUDGET AND FISCAL REVIEW SUBCOMMITTEE #4
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CHAIR, MOBILE AND MANUFACTURED HOMES
CHAIR, CITIZEN PARTICIPATION

JOINT COMMITTEE
JOINT RULES

May 11, 2006

The Honorable Steve Westly
Chair, California State Lands Commission
100 Howe Avenue, Suite 100-South
Sacramento, CA 92825

Dear Steve:

I write to oppose the BHP Cabrillo Port Liquefied Natural Gas (LNG) Deepwater Port Revised Draft Environmental Impact Report (DEIR).

First, and perhaps foremost, before approval of *any* LNG project takes place, a comprehensive independent assessment of the state's natural gas needs specific to LNG should be completed. To date, no such assessment has been undertaken. I strongly urge the Commission to request that the California Energy Commission complete an assessment of the state's natural gas needs. To act on an issue with such enormous policy implications and potential impacts on Californians absent this information would be both irresponsible and potentially detrimental to ratepayers, the environment and the safety of communities adjacent to an LNG site.

If and when a determination is made that there is a need to include LNG as part of the state's natural gas portfolio, then a planning process should be established to determine how best to meet those needs. This process must take into account the cumulative impacts to the state from environmental, safety and consumer protection perspectives. Projects should not be approved in a piecemeal fashion as currently proposed.

As to the Draft EIR before you, the Project Purpose, Need and Objectives section is overly broad and severely deficient. It states that "the need for the proposed Project is market-based: it would meet the economic need for reliable and diverse sources of natural gas." What does this mean, other than that someone stands to profit from the project? This is an extremely broad, and thus ambiguous and ill-defined, definition of "market-based." While it may be reasonable to assume that an increase in supply would have a potential to benefit consumers, there is no guarantee that additional supplies would in fact result in lower prices for California ratepayers and consumers. Often what benefits a large corporation does not extend to the benefit of consumers.

S207-1
In addition to this letter sent to the Honorable Steve Westly, identical letters from Joseph L. Dunn also were sent to the Honorable Cruz Bustamante and Michael C. Genest.

S207-2
Your statement is included in the public record and will be taken into account by decision-makers when they consider the proposed Project.

S207-3
As discussed in Section 1.2.1, the California Energy Commission (CEC) and California Public Utilities Commission (CPUC) must "carry out their respective energy-related duties based upon information and analyses contained in a biennial integrated energy policy report adopted by the CEC." Section 1.2.1 also describes the public process that is used to develop the Integrated Energy Policy Reports to ensure that California's energy-related interests and needs are met.

S207-4
Section 1.1.1 contains information on the process used by the Deepwater Port Act (DWPA) of 1974, as amended, which establishes a licensing system for ownership, construction and operation of deepwater port (DWP) facilities. As discussed, the role of the Maritime Administration (MARAD) is to balance the Congressionally imposed mandates (33 U.S.C. 1501) of the DWPA, including those to protect the environment; the interests of the United States and those of adjacent coastal states in the location, construction, and operation of deepwater ports; and the interests of adjacent coastal states concerning the right to regulate growth, determine land use, and otherwise protect the environment in accordance with law.

At the same time, the California State Lands Commission (CSLC) is reviewing the application to ultimately decide whether to grant the Applicant a lease to cross State sovereign lands. As described in Section 1.2.1, "[t]he CSLC authorizes leasing of State lands to qualified applicants based on what it deems to be in the best interest of the State in compliance with the [California Environmental Quality Act]."

Section 1.1.2 contains information on the Governor of California's role in DWP licensing. As discussed, MARAD may not issue a license without the approval of the Governor of the adjacent coastal state (33 U.S.C. 1503(c)(8)). Section 1.1.3 contains information on the role of the U.S. Environmental Protection Agency (USEPA):

"[t]he Port must meet all Federal and State requirements and is required to obtain air and water discharge permits from the USEPA." Section 1.2.1 contains additional information on Federal and State responsibilities. Section 1.1.4 contains information on the role of the CSLC to consider whether or not to grant a lease of State lands for the subsea pipelines. The lease may also include conditions relating to those parts of the Project not located on the lease premises. As described in Section 1.3.1, one of the main purposes of the EIS/EIR for MARAD is to "(f)acilitate a determination of whether the Applicant has demonstrated that the DWP would be located, constructed, and operated in a manner that represents the best available technology necessary to prevent or minimize any adverse impacts on the marine environment."

The USEPA, the U.S. Department of Commerce, including NOAA's National Marine Fisheries Service (NMFS or NOAA Fisheries Service), and the U.S. Department of the Interior, including the Minerals Management Service and the U.S. Fish and Wildlife Service, are cooperating Federal agencies.

As discussed in Section 1.3.2, for significant impacts, the CSLC must adopt a Statement of Overriding Considerations to approve the Project if the specific economic, legal, social, technological, or other benefits of a proposed project outweigh the unavoidable adverse environmental effects (State CEQA Guidelines section 15093(a)). After the CSLC's decision, other State and local agencies may take actions on the Project, i.e., on related permits or necessary approvals. These agencies include the California Public Utilities Commission, the California Coastal Commission, the California Department of Fish and Game, the California Air Resources Board, the Los Angeles Regional Water Quality Control Board, the California Department of Transportation, the City of Oxnard and/or Ventura County (for the onshore part of the Project within the coastal zone), and local air quality control districts such as the Ventura County Air Pollution Control District and the South Coast Air Quality Management District. Section 1.4.2 contains information on the changes to the proposed Project that have been made during the environmental review process.

Section 1.5 contains information on opportunities for public comment. After the MARAD final license hearing, the public will have 45 days to comment on the Final EIS/EIR and the license application. The Federal and State agencies will have an additional 45 days to provide comments to the MARAD Administrator. The Administrator must issue the Record of Decision within 90 days after the final license hearing. The CSLC will hold a hearing to certify the EIR and make the decision whether to grant a lease. The

California Coastal Commission will also hold a hearing. Comments received will be evaluated before any final decision is made regarding the proposed Project.

California Senate Bill 426 (Simitian), which would have created a ranking process for different LNG projects, was re-referred to the California Assembly Committee on Utilities and Commerce on August 24, 2006. As of November 30, 2006, the Legislature's Current Bill Status shows it as "From Assembly without further action," which ended the consideration of the bill during the 2005-06 Legislative Session.

S207-5
Sections 1.2.2 and 1.2.3 contain updated information on natural gas needs in the U.S. and California. Forecast information has been obtained from the U.S. Department of Energy's Energy Information Agency and from the California Energy Commission.

Following publication of this Final EIS/EIR, MARAD, the USCG, and the CSLC will serve public notice and hold final hearings. MARAD and the USCG will hold a final DWPA license hearing in accordance with 33 CFR 148.222. After the final license hearing is concluded by MARAD and the USCG, the Commandant (CG-3PSO), in coordination with the Administrator of MARAD, will consider any requests for a formal hearing as specified in 33 CFR 148.228. The CSLC will hold a hearing to certify the EIR and make the decision whether to grant a lease.

Your statement is included in the public record and will be taken into account by decision-makers when they consider the proposed Project.

Supply and demand are frequently cited as an explanation for the dramatic increases experienced in the natural gas market. We have heard this rationale before, i.e., in the electricity market, and as there, this rationale is far too simplistic and may turn out to be disingenuous. And, in fact, equilibrium between supply and demand has been shown to be quite profitable for the natural gas industry. Demand for natural gas has remained fairly constant over the past decade, and yet prices continue to skyrocket. While increasing supply might have an improved affect on prices, this would only occur to the extent that a competitive, functioning market is in place, which I do not believe is the case.

S207-5 Continued

The financial markets for natural gas have virtually no regulation and very little transparency. Natural gas market price indices are self reported. During my investigation of the electricity crisis, whistleblowers provided sworn testimony and evidence of widespread manipulation of the natural gas indices for profit.

The fact that the proposed project is a closed access terminal should only add to the concerns raised by the proposed project about the potential for monopoly and/or oligopoly behavior. A closed access terminal creates additional barriers to others to enter the market and is not conducive to market competition.

The state should not approve any aspect of one of these projects until such time as a comprehensive assessment of the state's natural gas needs has been completed, a public policy has been adopted relating to LNG, and measures are in place to ensure a competitive, functioning market to protect California consumers and businesses.

I urge you as a member of the State Lands Commission to take a leadership role in this endeavor.

Thank you for the courtesy of your time. If you have any questions, please contact me at (916) 651-4034.

Very truly yours,

JOSEPH L. DUNN
Senator, 34th District

JLD/rp

cc: Paul Thayer
Dwight E. Sanders

CAL MARITIME

S203

May 2, 2006

Mr. Dwight E. Sanders
California State Lands Commission
100 Howe Avenue, Suite 100-South
Sacramento, CA 95825

State Clearinghouse number: 2004021107.
USCG/MARAD Docket number USCG-2004-16877.

Dear Mr. Sanders:

As the President of the California Maritime Academy (a campus of the California State University System) and the only degree-granting and comprehensive maritime academy on the West Coast, I believe that I have some perspective on West Coast maritime manpower issues. At Cal Maritime, we graduate highly trained and skilled maritime professionals who are aggressively sought after by U.S. maritime companies. In recent years every graduate who wanted a job in that industry has found employment.

The American people made it very clear during the recent debate about port security, and the ensuing controversy, that they believe it is in the national interest to have Americans firmly in charge of managing our ports and the U.S. coastline. That discussion extends to those ships carrying sensitive cargoes, such as those carrying liquefied natural gas (LNG). It is critical that LNG ships calling in U.S. ports have licensed deck and engine officers who have excellent, if not native, English speaking capabilities. It would be doubly reassuring to know that they were U.S.-trained mariners who have also passed the prerequisite Coast Guard and FBI background checks. S203-1

While I cannot endorse any particular project, I can say that the BHP Billiton Cabrillo Port LNG project, as proposed in the current draft EIR/EIS, addresses maritime security in a number of ways. One of the ways BHP Billiton has demonstrated that it recognizes the critical need to help guard against security threats is by their commitment to use U.S. Coast Guard licensed and credentialed mariners on the ships transporting LNG, and on the FSRU, at Cabrillo Port. I believe that having experienced and certified U.S. Coast Guard merchant officers and mariners involved in the transporting and handling of LNG will help to ensure that this and other proposed LNG projects will be safe and secure, and an energy success story for California. S203-2

Sincerely,

William B. Eisenhardt
President

THE CALIFORNIA MARITIME ACADEMY

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S203-1
Sections 4.2.7.3 and 4.3.1.5 contain information on these topics.

S203-2
Your statement is included in the public record and will be taken into account by decision-makers when they consider the proposed Project.

S209

Air Resources Board

Robert F. Sawyer, Ph.D., Chair
1001 I Street • P.O. Box 2815
Sacramento, California 95812 • www.arb.ca.gov

Dan Skopec
Acting Secretary

Arnold Schwarzenegger
Governor

TO: Dwight E. Sanders, Chief
Division of Environmental Planning
State Lands Commission
100 Howe Avenue, Suite 100 South
Sacramento, California 95825-8202

FROM: Dean C. Simeroth, Chief
Criteria Pollutants Branch

DATE: May 10, 2006

SUBJECT: COMMENTS ON REVISED DRAFT OF THE CABRILLO PORT ENVIRONMENTAL IMPACT REPORT (STATE CLEARINGHOUSE DOCKET NUMBER: 2004021107)

Thank you for the opportunity to comment on the revised draft of the Cabrillo Port Environmental Impact Report (EIR).

As you know, the Air Resources Board (ARB) staff provided comments on the"Administrative Revised Draft Environmental Impact Report for the Cabrillo Port Liquefied Natural Gas Deepwater Port" (attached). We have reviewed the current revised draft and acknowledge that our comments have been incorporated. However, we have an additional comment. This is because the applicant has indicated that liquefied natural gas (LNG) may be imported that may exceed the existing local natural gas quality. This is presented in Section 4.6.2 of the draft EIR. The section is summarized below, followed by our comment. S209-1

New Comment: Section 4.6.2 Regulatory Setting

This section includes a discussion on gas quality and the potential for adverse air quality impacts associated with the burning of higher energy content gas derived from LNG. Line 12, page 4.6.24 further discusses that because of several unknown factors, the potential impact from the proposed project from importing LNG on air quality cannot be determined.

Comment

ARB staff believes that the potential for an adverse impact on air quality from the use of higher energy content natural gas in California is significant. As stated in this section, S209-2

S209-1
Thank you for the information.

S209-2
As indicated in Section 4.6.2, the natural gas imported by the proposed Project would need to meet the requirements of Rule 30 and General Order 58-A of the California Public Utilities Commission (CPUC) or it could not be accepted for distribution by SoCalGas. Rule 30, as described, has specific requirements, including a heating value range.

Section 4.6.2 contains additional information on the regulatory setting affecting air quality and a revised discussion of the heating value of imported natural gas that incorporates the recent rulemaking by the CPUC. An analysis of the impacts of the CPUC rulemaking is beyond the scope of this document as required by NEPA and the CEQA.

S209-2 Continued

the South Coast Air Quality Management District has conducted emissions tests that indicate that nitrogen oxides (NOx) emissions can increase by 20 percent when combusting this fuel in stationary sources. Other test programs support this theory.

In 2005, the Southern California Gas Company completed a test program that evaluated possible emissions impacts associated with varying natural gas quality on selected residential and commercial/light industrial equipment (13 units were tested).[1] The results from this evaluation indicate that although most mass marketed residential equipment were minimally impacted, commercial and industrial equipment were significantly impacted when burning high energy content natural gas (e.g. 1400 wobbe number). Our analysis of this evaluation indicates that NOx emissions from these units can increase from 40 percent or more when comparing natural gas with a 1400 wobbe number versus a 1330 wobbe number (i.e. average historical baseline in the South Coast Air Basin).

We understand that although the applicant has identified a source of LNG that would be comparable to the natural gas consumed in California, the applicant has not ruled out the possibility of importing LNG with a quality approaching 1400 wobbe number. Based on this, we believe that the revised draft EIR should evaluate the potential impact on air quality if the applicant were to import and deliver LNG above the historical average quality of natural gas in the region. The revised draft should also discuss possible mitigation measures such as limiting the quality of the LNG imported or possible re-tuning of equipment that would burn the fuel.

Again, thank you for the opportunity to comment on the revised draft. If you have any questions regarding our comments, please call me at (916) 322-6020, or Gary M. Yee, Manager, Industrial Section at (916) 327-5986.

Attachment

cc: Gary M. Yee, Manager
Industrial Section

[1] "Final Report, Gas Quality and Liquefied Natural Gas Study", April 2005, Southern California Gas Company, P.O. Box 513249 SC723B, Los Angeles, CA 90051.

STATE OF CALIFORNIA—THE RESOURCES AGENCY ARNOLD SCHWARZENEGGER, GOVERNOR

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May 12, 2006

Dwight Sanders
California State Lands Commission
100 Howe Avenue, Suite 100-South
Sacramento, CA 95825-8202

RE: **Comments on the March 2006 Revised Draft Environmental Impact Report for the Cabrillo Port Liquefied Natural Gas Deepwater Port (State Clearinghouse No. 2004021107)**

Dear Mr. Sanders:

Thank you for the opportunity to review and comment on the Revised Draft Environmental Impact Report ("Draft EIR") for the Cabrillo Port Deepwater Port Project, dated March 2006. BHP Billiton proposes to construct and operate a liquefied natural gas ("LNG") floating storage and regasification unit ("FSRU") in federal waters about 14 miles off the coast of Ventura and Los Angeles counties. The project would include installation and operation of an FSRU and new offshore and onshore natural gas pipelines.

The project requires submittal of a consistency certification to the Coastal Commission pursuant to Section 307(c)(3)(A) of the federal Coastal Zone Management Act. Also, the applicant must obtain a coastal development permit to authorize project-related activities located within State waters. To approve the project, the Coastal Commission must find that the project will be constructed and operated in a manner consistent with the coastal resource protection and use policies of Chapter 3 of the Coastal Act. Onshore project-related components (e.g., pipelines and a metering station) located within the coastal zone will require a separate coastal development permit from the City of Oxnard (and/or County of Ventura) under its certified Local Coastal Program. The local government coastal permit(s) decision may be appealed to the Coastal Commission.

Coastal Commission staff has focused its review of the Revised Draft EIR on certain key issue areas central to the Coastal Commission's evaluation of the proposed project under the Coastal Act's coastal resources protection policies. Our comments and requests for additional information are as follows:

S210-1

S210-1
Thank you for the information.

1. Project Need

The Draft EIR evaluates project need and natural gas supply alternatives but does not include a cumulative analysis of other proposed, pending and approved natural gas and LNG projects in the needs assessment. While the Draft EIR does discuss the Sempra and Chevron projects in Baja California, it only does so in the context of individual alternatives to the proposed project. S210-2 S210-3

Currently, California receives natural gas from a wide variety of sources including fields in California, other western states, and Canada. The reliability and economics of natural gas supplies in California are influenced by supply and demand from users outside of California. The Draft EIR analysis of need and supply alternatives does not adequately evaluate regional and national supply and demand issues, and especially how the balance between supply and demand will change as the result of other natural gas and LNG projects.

The Draft EIR needs to be revised to evaluate regional and national changes in the supply and demand balance in light of other proposed, approved, and recently constructed natural gas projects. Specifically, the Draft EIR should evaluate the impact on California natural gas supplies from LNG terminals that are proposed, approved, and/or constructed in the US Gulf and East coasts, and Baja California. In addition, the Draft EIR should include a discussion of the impact that the approved Alaska Gas Pipeline would have on California natural gas supplies. Most of these projects have the ability to individually supply California using existing pipeline infrastructure and with no need to build additional terminal infrastructure in California. On a cumulative basis, will recently approved and constructed projects alter natural gas distribution characteristics capable of meeting California's natural gas requirements?

2. Project Description

a. Project Capacity/Throughput S210-4

The project description does not adequately characterize maximum operating conditions and worst-case operating conditions of the project. The Draft EIR is internally inconsistent when it defines the maximum throughput of the project: the project description mentions an annual average rate of 800 MMcfd, a maximum gasification rate of 1,500 MMcfd, and the "future/maximum design case" of 1,200 MMcfd (see page 4.7-51, lines 7-8). The project description should be revised to clearly identify the proposed project's design throughput, operating assumptions, operating limitations, and expected operating conditions.

It appears that the Draft EIR analysis relies on the "average" regasification capacity of 800 million cubic feet per day (MMcfd) even though the project is designed to re-gasify up to 1,500 MMcfd (page 2-24, lines 23-28). While the applicant has proposed to limit LNG carrier vessel deliveries to 130 per year (page 4.3-12, lines 22-24), the use of larger LNG carrier vessels (195,000 m^3) would still accommodate a peak annual throughput of 1,500 MMcfd. Also, an average regasification rate of 800 MMcfd is based on five of eight submerged combustion vaporizers operating at 80 percent (page 2-24, lines 12-14), which is only 50 percent of the FSRU system regasification capacity. Therefore, in the absence of specific mitigation measures and/or permit conditions, it is likely that the project would exceed a regasification rate of 800

S210-2
Sections 4.20.1 and 4.20.3 have been revised to include updated discussions of the potential cumulative impacts of the proposed Clearwater Port and OceanWay LNG facilities, which in addition to the Sound Energy Solutions project proposed in the Port of Long Beach, are the only proposals for which applications have been filed.

S210-3
Sections 1.2.2 and 1.2.3 contain updated information on natural gas needs in the U.S. and California. Forecast information has been obtained from the U.S. Department of Energy's Energy Information Agency and from the California Energy Commission. As stated in Section 1.2.3, "[t]he California Legislature recognizes that the CEC is the State's principal energy policy and planning organization and the CEC is responsible for determining the energy needs of California."

As discussed in Section 1.2.1, the California Energy Commission (CEC) and California Public Utilities Commission (CPUC) must "carry out their respective energy-related duties based upon information and analyses contained in a biennial integrated energy policy report adopted by CEC." Section 1.2.1 also describes the public process that is used to develop the Integrated Energy Policy Reports to ensure that California's energy-related interests and needs are met.

S210-4
Section 1.0, "Introduction," has been updated to more clearly specify the throughput figures used in the environmental analysis. As stated, "Under normal operating conditions, the annual average throughput would be 800 million cubic feet per day; however, the Applicant has calculated that maximum operating scenarios would allow deliveries of up to 1.2 billion cubic feet per day, or the gas equivalent 1.5 billion cubic feet per day on an hourly basis for a maximum of six hours. These operating conditions would only be in effect if SoCalGas were to offer the Applicant the opportunity to provide additional gas in cases of supply interruption elsewhere in the SoCalGas system or extremely high power demand, for example, during hot summer days." In addition, applicable sections of the document have been updated similarly to clarify the throughput figures used in the analysis, including Sections 4.6, 4.7, 4.14, and 4.18.

MMcfd on an annual average basis. We are therefore concerned that the Draft EIR does not adequately define worst-case operating conditions and potential impacts associated with project operations. S210-4 Continued

The project description should be revised to clearly state maximum annual operating conditions for the project, especially for such variables as regasification rate and the number of vessel deliveries (this information is not listed in the project description but is provided as part of the environmental analysis in Section 4.3). If maximum operating conditions are found to exceed the average values currently listed in the Draft EIR, the document should be revised to provide a worst-case analysis of potential project impacts.

b. Tanker Berths

Although the Draft EIR evaluates the impacts of an LNG terminal with one tanker berth only, Section 2.2.2.3 of the project description states that BHP's Deepwater Port Act license application includes an option for a second berth on the port side of the FSRU that could be added in the future. A footnote to this section of the Draft EIR (page 2-16) notes that a second berth would require a modification of the license and "additional environmental documentation." We recommend that the Draft EIR state more clearly in the project description (rather than as a footnote) that, 1) the Draft EIR evaluates the impacts of one berth only, 2) any license granted by MARAD will be limited to one berth only, 3) any future proposal by BHP to add a second berth will require an amendment to the license, and 4) adding a second berth will require further environmental review under the National Environmental Policy Act. We note also that any amendment to the license to add a second berth will require further federal consistency review by the Coastal Commission. S210-5

c. LNG Carrier Limits

The project description does not note the applicant's stated limit of 130 LNG carriers per year. The number of LNG carriers per year that can visit the FSRU should be clearly stated in the Draft EIR project description. This information does not appear in the Draft EIR until the analysis of Marine Traffic (page 4.3-12, lines 22-24). S210-6

3. Public Safety

a. Consequence Analysis Methodology

NOAA data on buoy 46025 indicates that wind speeds lower than 2 m/s occur regularly at the proposed FSRU site. Wind speeds of 2 m/s or lower occur 21.8 percent of the time (2004 data), wind speeds of 1 m/s or lower occur 6.3 percent of the time and wind speeds of 0.5 m/s or lower occur 1.5 percent of the time. The Draft EIR should evaluate worst-case impacts associated with the proposed project; therefore, the document should be revised to analyze a lower wind speed to be consistent with the meteorological data from the area. S210-7

b. Thermal Radiation Exposure Criteria

Modeling of flame jets associated with a 36-inch pipeline rupture indicates that flame jets could affect an area as much as 2,000 feet distant with radiation levels of 5 kW/m^2, and 1,400 feet at levels of 10 kW/m^2. The potential impact radius does not provide a level of protection equal to S210-8

S210-4 Continued

S210-5
Section 2.2.2.3 has been revised to clarify that the document only evaluates the impacts of a single LNG carrier berth on the FSRU and that additional environmental documentation would be required if a second berth were proposed to be added.

As stated in Section 2.2.2.3, the proposed Project includes "a single berth and LNG receiving facility to be located on the starboard side of the FSRU initially, with an option to install similar facilities on the port side at a later date. The second berth, if added, would provide operational flexibility under unusual conditions and would never be used simultaneously because no more than one LNG carrier at a time would unload." If added, the second berth would require a modification of the FSRU license and additional environmental review.

S210-6
The Project has been modified since issuance of the March 2006 Revised Draft EIR. See Section 1.4.2 for a summary of Project changes. The Applicant has reduced the number of LNG carriers that would call on the FSRU annually from a maximum of 130 to a maximum of 99. As a result, the number of LNG carriers docking at the FSRU weekly would be reduced from an average of two to three per week to one to two per week. Since a crew vessel would meet each LNG carrier, the number of crew vessel trips to and from Port Hueneme would also change. See Section 4.3 for more information in this regard.

S210-7
Section 4.1.8.5 contains information on existing wind conditions at the offshore Project site. Figure 2.1-2 depicts the maximum distance from the FSRU in any direction that could be affected in the event of an accident; impacts would not reach the shoreline. Section 2.3.5.3 of the Independent Risk Assessment (IRA) (see Appendix C1) contains information on the environmental, meteorological, and ocean conditions that were considered in the modeling of LNG spills and dispersion. The IRA defines and evaluates representative worst credible cases (scenarios of events that would lead to the most serious potential impacts on public safety).

For the worst credible intentional or accidental event release, it was determined that a wind speed of 2 m/s (4.5 mph) resulted in the worst case in which the flammable vapor cloud extended about 6.3

NM (7.3 miles or 11.7 km) downwind from the FSRU. Higher wind speeds would cause the gas to dissipate more quickly to below the lower flammable limit; therefore, the potential impact distance would not be as great.

S210-8
Table 4.2-14 in Section 4.2.8.2 contains information on regulatory requirements for pipelines. Additional safety measures have been implemented since the 1994 incident. As shown, the Pipeline Safety Improvement Act of 2002 contains requirements to identify high consequence areas and to implement Pipeline Integrity Management Programs in identified areas. Appendix C3-3 under "Determination of High Consequence Areas" contains information on how a potential impact circle is calculated according to 49 CFR 192.905. The analysis in the EIS/EIR is consistent with these requirements.

generally accepted impact levels for injuries and fatalities. Past pipeline ruptures, such as the one that occurred in New Jersey in 1994, were associated with flame lengths of 500 feet with injury and fatality thermal radiation levels significantly beyond that distance. Impacts to 5 and 10 kW/m^2 should be included in the analysis to quantify the level of potential injuries and fatalities, respectively.

S210-8 Continued

The Draft EIR notes that "Sandia has stated that 5 kW/m^2 is commonly considered the heat flux level appropriate for protection of human health and safety (Sandia 2004)." However, the Department of Housing and Urban Development (HUD) has established thermal radiation flux levels of 31.5 kW/m^2 (10,000 Btu/h/ft^2) for buildings and 1.4 kW/m^2 (450 Btu/h/ft^2) for people as guides in determining an "Acceptable Separation Distance" between a fire consuming combustible liquids or gases and nearby structures and people (24 CFR Part 51, Subpart C (paragraph 51.203)). We recommend the Draft EIR be revised to evaluate the onshore pipeline routes in light of the HUD exposure criteria and identify all vulnerable populations and buildings based on the HUD criteria.

S210-9

c. Commercial and Recreational Vessel Safety

Based on the significance criteria, the release of LNG could affect boaters outside of the two nautical mile zone, causing fatalities or serious injuries. Either Impact PS-1 should be modified to Class I, or the significance criteria should be changed to define a frequency level at which fatalities and serious injuries are acceptable. Although this impact is described in Impact PS-2, if Impact PS-1 produces consequences beyond the 500m exclusion area, it should also be classified as a Class I impact.

S210-10

d. Offshore Gas Pipeline Safety

Impact PS-3 identifies potential releases from the offshore pipeline as a significant Class I impact. Additional mitigation measures for detecting damage to sub-sea pipelines should include internal inspection devices (smart-pigs) as per CFR 195-150(7). Although as currently designed the hose at the FSRU precludes the use of a pig, the document should consider the feasibility of designing the offshore portion so that it is piggable, to detect corrosion or impact damage (e.g., damage from anchors), and thereby reduce the probability of a pipeline failure in the near-shore pipeline. If it is not possible to design the offshore pipeline to allow for internal inspection devices, the portion of the pipeline between the shoreline and the State's three-mile limit should use pipe with a greater wall thickness. A pipe with a thicker wall would be more resistant to damage and failure from external forces, and would also allow for greater internal and external corrosion before a pipeline failure would occur.

S210-11

e. Onshore Gas Pipeline Injuries and Fatalities

The frequency of injuries and fatalities, as discussed on pages 4.2-73/4, is a function of many variables including the distance to populations and the population densities around a pipeline. A national average takes into account that some transmission pipelines pass through densely populated areas, and therefore have substantially higher risks of fatality and injury, while the vast majority pass through unpopulated areas and have very low risks of acute human impacts. The risks associated with the pipelines should be analyzed on a case-specific basis using the population information for the Oxnard and Santa Clarita areas as part of the analysis.

S210-12

S210-8 Continued

S210-9
As discussed in Section 4.2.7.2, the 5 kilowatt per square meter (kw/m^2) value is "...based on both exposure time and damage levels. The National Fire Protection Association (NPFA) standard for the production, storage, and handling of LNG (Standard 59A) recommends that an incident heat flux value of 5 kw/m^2 be the design level that should not be exceeded at a property line or where people gather. The NFPA is an international nonprofit organization that advocates for fire prevention and serves as an authority on public safety practices. Based on its field experience, the NFPA believes the current thermal limit is reasonable and has no plans to revise it. The IRA adopted the NFPA levels." The onshore pipelines are not regulated by HUD; they are regulated by the agencies shown on Table 4.2-3 in Section 4.2.4.1. The 5 kw/m^2 value was also used in the development of the Pipeline Integrity Management Program, which is required under 49 CFR Part 192 and regulated by the U.S. Department of Transportation Pipeline and Hazardous Materials Safety Administration Office of Pipeline Safety.

S210-10
As discussed in Section 4.2.7.6, Impact PS-1 addresses potential minor releases of LNG that could affect members of the public and concludes that the impact would be adverse but reduced to a level below its significance criteria with the implementation of the mitigation measures. Impact PS-2 contains information on larger LNG spills that have the potential to affect the public, and concludes that even with mitigation measures, it would still potentially be a significant (Class I) impact.

S210-11
The proposed Project includes the use of internal inspection devices (see page 2-41 of the March 2006 Revised Draft EIR.) Section 2.3.1 of the Final EIS/EIR contains information on this topic. Section 4.2.8.2 contains information on pipeline safety and inspections.

S210-12
Section 4.2.8.1 contains background information on natural gas pipelines and historic incident data. As shown, the number of incidents has declined significantly over the last 33 years. Table 4.2-10 contains specific information regarding the causes of natural gas transmission line incidents. Table 4.2-11 contains information on the incidents that SoCalGas has reported to the National

Response Center. This information does not support the need to conduct a population-based pipeline risk analysis to develop pertinent design on mitigation measures.

Section 4.13.1 contains information on sensitive land uses in proximity to proposed and alternative pipeline routes, such as schools. There are no schools in the immediate vicinity of either of the proposed pipeline routes. Section 4.2.8 describes regulations regarding pipelines, including the requirement to establish public education programs to prevent and respond to pipeline emergencies. Section 4.2.8.4 contains information on the estimated risk of Project pipeline incidents. Section 4.16.1.2 describes emergency planning and response capabilities in the Project area.

The proposed pipelines within Oxnard city limits would meet standards that are more stringent than those of existing pipelines because they would meet the minimum design criteria for a U.S. Department of Transportation (USDOT) Class 3 location. Also, MM PS-4c includes the installation of additional mainline valves equipped with either remote valve controls or automatic line break controls. SoCalGas operates high-pressure natural gas pipelines throughout Southern California.

S210-12 Continued

Populations within impact zones should be shown and discussed. Population densities along the pipeline routes are shown in the attached Figures 1 and 2. Estimated population densities and populations that could be exposed to flame jets and vapor cloud fires should be included in the document.

f. Onshore Gas Pipeline Mitigation

S210-13

Impact PS-4 identifies potential releases from the onshore pipeline as a significant Class I impact. In order to reduce the probability of potential pipeline failures, additional mitigation measures should be incorporated into the document. First, mitigation related to reducing the frequency of third party impacts on the pipeline should be implemented. Third-party impacts are the greatest contributors to pipeline releases. Measures should include warning tape installed at least 12" above the pipeline, and installation of pipeline line markers at entrances and exits of industrial or business properties to prevent third-party damage due to construction activities. Second, in areas where third-party damage is most likely to occur, a pipeline with an increased wall thickness should be used. A thicker pipe wall would be more resistant to impacts and failures from external forces.

g. Ship Allision with the FSRU

S210-14

Given the potential speed of approaching ships in the open waters (20+ knots), an allision scenario would cause at least a loss of two tanks and, given the energy of the collision and the resulting impacts of the FSRU engulfed in a pool fire, most likely the loss of the entire FSRU contents. Although this scenario is low probability, it should be examined as the catastrophic, worst case event.

In January 2006, a Panamanian cargo ship collided with another cargo ship near Peru. The collision caused the Panamanian ship to completely split in half. Although this ship was smaller than the FSRU (150m verses 286m), the impacting ship, the Pintayl, was only 197m long, which is substantially smaller than a large cargo ship or very large crude carrier of over 300m. An impact such as this on the FSRU, with the FSRU splitting in half, would most likely cause a failure of all three tanks; particularly as the internal tanks are not designed to sustain significant listing and impacts.

The Sound Energy Solutions EIS/EIR indicated that speeds as low as 3 knots for membrane tanks and 4.5 knots for spherical tanks with impact angles greater than 60 degrees could cause significant damage to the LNG vessels (FERC, 1996). Open water speeds of larger tankers or ships would exceed these speeds by a significant margin. The USCG data indicates that there have been 12 open ocean vessel allisions, with one producing a pollution incident, for the five-year period 1997-2001. Information related to impact studies and historical data should be added to the document.

4. Marine Traffic

S210-15

As a member of the Port Hueneme Harbor Safety Committee, Commission staff worked with other members of the Committee to develop a comment letter, dated May 5, 2006, addressing vessel traffic safety at the proposed Cabrillo Port. We are attaching a copy of that comment letter to this one; please incorporate the Committee's letter as a part of our comment letter.

S210-12 Continued

S210-13

As discussed in Section 4.2.8.4, the proposed Project already includes mitigation that exceeds regulatory standards. As stated under AM PS-4a, "(t)he Applicant or its designated representative would construct all pipeline segments to meet the minimum design criteria for a USDOT Class 3 location," even though Class 1 or 2 would be allowed for most of the pipeline routes. See Table 4.2-15 for a definition of pipeline location class definitions. As stated in Section 4.2.8.2, the higher class location means that "(p)ipe wall thickness and pipeline design pressures, hydrostatic test pressures, maximum allowable operating pressure (MAOP), inspection and testing of welds, and frequency of pipeline patrols and leak surveys must all conform to higher standards." In addition, the valve spacing and design for Project pipelines exceed the minimum design criteria contained in 49 CFR Part 192.

S210-14

There are several definitions for the term "allision." If the term is meant to imply a collision with a fixed object, the FSRU is not a fixed object. Part of any energy of a collision with the FSRU would be transferred into movement of the FSRU which is moored at the stern to allow weather veining. The marine collision scenario takes into account the potential LNG spill from a marine collision (see Tables 4.2-1 and 4.2-8 and Section 4.2.7.6). Appendix D to the IRA (see Appendix C1) contains information on the use of the finite element model to calculate hole sizes resulting from accidental ship collision with the FSRU; Figure 6.1 shows the collision speeds for several ship types that would be required to create a hole in the LNG containment tank. "Independent Risk Assessment" in Section 4.2.7.6 summarizes the results of the IRA analysis.

The Independent Risk Assessment (IRA) (Appendix C1) defines and evaluates representative worst credible cases (scenarios of events that would lead to the most serious potential impacts on public safety). These included accidents that would affect one, two, or all three tanks of the FSRU.

S210-15

As shown in Tables 4.2-1, 4.2-2, 4.2-7, and 4.2-8, the release of the contents of all three tanks (the entire contents of the FSRU and an attending LNG carrier) is addressed in the escalation scenario associated with a large intentional event. Section 4.2.7.6 contains additional information on how intentional events are addressed. Although the 2006 U.S. Department of Energy's Sandia National Laboratories third-party technical review of the 2004 IRA found that

the three-tank simultaneous release (a massive LNG release in a short time period) was not credible, Sandia recommended the consideration of a cascading (escalation) three-tank scenario.

S210-15
Responses to comments in this attached letter from the Port Hueneme Harbor Safety Committee are contained in 2006 Comment Letter L221.

5. Aesthetics

a. Overview Map

Please add an overview map of the project area, showing the location of each of the KOP's in relation to the FSRU and other project elements. S210-16

b. Additional Observation Points S210-17

The area immediately on-shore of the FSRU is the Santa Monica Mountains National Recreation Area. Various public recreation facilities within the NRA are at higher elevations, and although these areas might be slightly further away from the FSRU than beaches located at sea level, the FSRU might nonetheless be visible from these areas. Some of these areas receive large numbers of visitors, and some of them are valued for their unobstructed ocean view. Areas of concern include:
Sandstone Peak: 3,111 feet (at Circle X Ranch)
Saddle Rock: 2,160 feet (at Rocky Oaks)
Triunfo Lookout: 2,658 feet (at Circle X Ranch)

We suggest you analyze the visual impact the FSRU may have on these public recreation areas. We also suggest you include some or all of these locations as additional KOP's, and that you consider including a KOP for Mugu Peak.

6. Air Quality

a. Operational Air Pollutant Emission Estimates S210-18

The Draft EIR inappropriately divides air pollutant emissions based on political boundaries and emission source type (e.g., LNG carriers versus the FSRU). Prevailing winds would transport all project-related air pollutant emissions to onshore areas a vast majority of the time. These areas, which include the South Coast and South Central Coast Air Basins, are classified as non-attainment for ozone. Project-related emissions, whether from the FSRU, LNG carriers, or other support vessels, would all be transported to non-attainment areas and would likely exacerbate existing standard violations.

We are concerned that this approach results in a piecemeal evaluation of potential project impacts. Therefore, the Draft EIR should be revised to clearly evaluate project-related air pollutant emissions from all sources, and identify all feasible mitigation measures to reduce potential air quality impacts. Specifically, all ozone precursors should be offset for all project-related emissions sources, regardless of emission source location. This would include all vessel-related emissions that operate within US waters, as defined by the US Exclusive Economic Zone of 200 nautical miles.

b. LNG Carrier Fuel Usage S210-19

The air quality section of the Draft EIR notes that:

S210-16
Figure 4.4-20 has been added to the end of Section 4.4. This figure shows the locations of all 18 key observation points for all photos used in Section 4.4, as well as for four new photos in Appendix F.

S210-17
Appendix F contains four new photographs, three of which are new photograph simulations of the FSRU from elevated inland postions. As suggested, the photographs were taken from higher elevations at Mugu Peak, Sandstone Peak, Trifuno Lookout, and a point close to Saddle Rock. The simulations did not result in any changes in or conclusions of the analysis.

S210-18
The Project has been modified since issuance of the March 2006 Revised Draft EIR. See Section 1.4.2 for a summary of Project changes. The following Project changes would reduce emissions of nitrogen oxide and other air pollutants:
- Reduction in the number of LNG carriers and change in crew vessel trips;
- Use of natural gas to power LNG carriers in California Coastal Waters;
- Diesel-fueled support vessels with emission controls; and
- Use of specific engine standards for onshore construction equipment.

The Applicant has committed to implement the following additional measure to reduce air emissions:
- Repowering of existing non-Project vessels with cleaner-burning engines.

These changes required revisions to air pollutant emission estimates and related air quality analyses.

Section 4.6.1.3 contains revised information on Project emissions and proposed control measures. Section 4.6.4 contains revised information on Project impacts and mitigation measures. These revisions address the concurrent emission of ozone precursors from the FSRU and Project vessels.

S210-19
The Project has been modified since issuance of the March 2006 Revised Draft EIR. See Section 1.4.2 for a summary of Project changes. LNG carriers associated with the Project would operate on natural gas (boil-off gas from the LNG cargo) with 1 percent diesel pilot during all operations in California Coastal Waters as defined by the California Air Resources Board. Section 4.6.1.3 contains information on emissions from LNG carriers operating in California Coastal Waters.

> LNG carriers, tugboats, and the crew/supply boat would operate only with natural gas as the primary fuel while operating in State waters and in Federal waters within 25 NM (29 miles or 46 km) of the coast of California…

This is contrary to our understanding of LNG carrier operation as defined by other LNG marine terminal applicants. For example, the EIS/EIR for the Sound Energy Solutions (SES) Long Beach LNG Import Project clearly states that:

> As a ship approaches port, the use of fuel oil may increase to about 10 tons per day. The increase occurs because the natural gas fuel supply system is complicated with greater risk of shutdown. Therefore, the additional fuel oil is used for safety to ensure adequate steam supply for propulsion.

The document adds:

> Under full load, the engine uses 10 to 15 percent oil with the balance being natural gas. At lower power levels, these engines consume a higher portion of fuel oil. At idle they may require 100 percent fuel oil and no natural gas.

Given these statements, it would appear that the Draft EIR has underestimated the amount of fuel oil that would be used by the LNG carriers, especially in the vicinity of the FSRU. Since air pollutant emissions are greater for fuel oil than natural gas, the Draft EIR has also likely underestimated air pollutant emissions and air quality impacts.

The Draft EIR should be revised to provide a worst-case estimate of LNG carrier fuel oil use and air pollutant emissions. The document should also include mitigation measures that identify quantitative and strict fuel oil limits to minimize potential air quality impacts associated with the proposed project.

c. Inadequate and Inappropriate Deferral of Mitigation

Mitigation Measure AM AIR-4a states:

> …the Applicant has committed to the USEPA, the CARB, and local air districts to identify a suitable emission reduction program (in addition to reductions inherent to the Project) that would reduce annual emissions of NOx by an amount up to the FSRU's annual NOx emissions.

The Draft EIR goes on to conclude that:

> …a NOx emission reduction program (AM AIR-4a) would likely be as effective in mitigating ambient ozone concentrations in onshore air basins as would corresponding emission reductions occurring at the FSRU. Thus, this measure would provide for emission reductions that reduce impacts to below significance criteria.

S210-19 Continued

S210-20

S210-19 Continued

S210-20

Impact AIR-4 and Impact AIR-5 in Section 4.6.4 have been revised to provide specific information regarding the Applicant's emissions reduction programs and their review by the USEPA and the California Air Resources Board (CARB). As part of air permit-to-construct application procedures, the Applicant has committed to the USEPA to achieve emissions reductions (in addition to reductions inherent to the Project) to an amount equal to the FSRU's annual NO_X emissions. The Applicant has executed contracts to retrofit two marine vessels (long haul tugs) by replacing the propulsion engines of each vessel with modern low emitting engines (Tier 2 compliant diesel-fired engines). At the request of the USEPA and the CARB, the Applicant conducted source testing to assist in determining the emission reductions expected as a result of the retrofits. Both the USEPA and the CARB have reviewed the results, but there is not yet a consensus on the estimated emission reductions from the mitigation proposal.

Based on the USEPA's and CARB's estimates, the proposed Emissions Reduction Program (AM AIR-4a) would provide for NO_X emission reductions greater than the estimated annual NO_X emissions from FSRU equipment and estimated NO_X emissions from operation of LNG carrier offloading equipment. However, the total emission reductions would be less than the annual NO_X emissions estimated for all operations (FSRU and Project vessels) in California Coastal Waters, as defined by the CARB. According to CARB, the emission reduction proposal "represents more than what would otherwise be required by the current determination of applicable regulations."

Appendix G9 contains a memorandum from the CARB to the CSLC on this topic. Electronic copies of the Applicant's reports submitted to the USEPA that detail the tug retrofits and related emission reductions are available at www.epa.gov/region09/liq-natl-gas/cabrillo-air.html.

The Draft EIR does not provide any details of the proposed emission reduction program, making it impossible for the public to review the merits and adequacy of the proposed mitigation measure. In addition, the Draft EIR does not provide any analysis of the effectiveness of this measure, nor does it communicate how residual impacts would be less than the significance criteria. S210-20 Continued

As noted in the Draft EIR, "Emissions of NOx and ROC generated from FSRU equipment could contribute to ambient ozone impacts in the areas located downwind of the Project." However, the Draft EIR fails to identify potential mitigation to reduce potential ambient ozone impacts that would result from project-related Reactive Organic Compound (ROC) emissions. Therefore, the Draft EIR has not adequately evaluated potential impacts on downwind ambient ozone concentrations, nor has it identified potential mitigation measures to reduce potentially significant impacts. S210-21

The Draft EIR should be revised to, 1) identify all feasible mitigation to reduce potential impacts to downwind ambient ozone concentrations, 2) clearly describe all mitigation measures, and 3) provide an analysis to determine if the proposed mitigation is sufficient to avoid significant air quality impacts to downwind locations.

7. Marine Biological Resources

a. Entrainment/Impingement and Discharge Effects

i. Inconsistencies in the descriptions of seawater intake volumes

The Draft EIR includes at least one inconsistency regarding anticipated seawater intake volumes, and it is not clear which volume is the proper basis for the impact analyses. Section 4.7 (and Table 4.7-8) states that the project will take in 10.4 million gallons per day, including 6.34 mgd of intake for generator cooling water; however, while Appendix H (Ichthyoplankton Analysis) also states that the total intake is 10.4 mgd, it describes the generator engine as using a closed loop cooling water system. Therefore, it appears there is a discrepancy of about 6 mgd to be corrected or explained. S210-22

ii. Source water area and volume

The Draft EIR's determination of the source water areas and volumes used to evaluate likely entrainment effects is incorrect. The document identifies the source water area for its entrainment analyses as nearly the entire Southern California Bight, an area covering several thousand square miles. This is likely far larger than the actual source water area, which is probably at most no more than just several square miles. As a result, the analysis significantly underestimates the overall entrainment effects of the project. S210-23

The Empirical Transport Model described in the Draft EIR for determining entrainment impacts requires an accurate description of source water volumes based on the area's hydrologic and biological characteristics. The volumes are calculated largely by determining the water areas from which organisms of entrainable age and size could be drawn in to the facility, and use local current patterns and the biological characteristics of organisms subject to entrainment to

S210-20 Continued

S210-21
The Project has been modified since issuance of the March 2006 Revised Draft EIR. See Section 1.4.2 for a summary of Project changes. Section 4.6.1.3 contains a revised discussion of emissions from Project construction and operations. Appendices G1 and G2 include the assumptions and emission factors used to calculate emissions. Impact AIR-4 in Section 4.6.4 addresses emissions of NOx and ROC generated from the operation of the FSRU.

S210-22
The Project has been modified since issuance of the March 2006 Revised Draft EIR. See Section 1.4.2 for a summary of Project changes. A closed loop tempered water cooling system, which recirculates water, would be used instead of a seawater cooling system, except during annual maintenance (four days for the closed loop tempered water cooling system, and four days for the Moss tanks when the inert gas generator [IGG] would be operating).

Because seawater would only be used during these maintenance activities, the volume of seawater used would be greatly reduced. Section 2.2.2.4 describes the proposed seawater uptakes and uses for the FSRU. Appendix D5 describes seawater intakes and discharges during Project operations, and Appendix D6 describes the closed loop water system.

The ichthyoplankton analysis (Appendix H and within Section 4.7) has been revised to reflect current intake volumes. Tables 4.7-8a and 4.7-8b in Section 4.7 provide a summary of the seawater uptakes required for operation of the FSRU and LNG carriers that were evaluated in the ichthyoplankton impact analysis.

S210-23
The source water body area was identified as a result of consultation with experts (summarized in Section 4.1 of Appendix H1 and in Appendix H1.1), who acknowledged that the methods described in Appendix H1 to identify the source water body were reasonable.

determine what proportion of organisms that could be entrained actually will be entrained. With the proper calculations, the source water area is probably much smaller than that described in the Draft EIR. S210-23 Continued

The Draft EIR also identifies the depth of the source water as extending to 210 meters below the surface throughout most of this several thousand square-mile area. This selected depth was not biologically-based; rather, it was based on the depth of samples taken during CalCOFI cruises. Actual source water depths are likely to vary within the area due to currents, upwellings, types of organisms, etc., and it is probably too difficult using existing data to precisely determine what the actual depths would be. Even so, the depths should be selected using a more credible approach than the sampling depth from the unrelated CalCOFI protocols. For example, it would likely be more accurate for the analyses to identify a prism of water of a specific dimension extending out from the intake location to the edge of the source water area based on known surface currents, seasonal upwellings, etc.

iii. Additional alternative locations and depths for FSRU ballast water intake

According to the Draft EIR, the proposed ballast water systems for the FSRU and LNG carriers will having intakes at between 40 and 50 feet of water depth. The Draft EIR concludes that there is not adequate data to fully assess the potential impacts of entrainment if the intakes are located at alternate depths. We suggest you select an optimum feasible depth for the intakes, based on which set of depth-stratified ichthyoplankton would be least affected by entrainment. S210-24

iv. Entrainment – general

On page 4-7-49, the document references a recent report by Exponent in support of its overall findings that entrainment impacts are insignificant. That report, however, has little in it that applies to this proposed project, and we recommend it not be given much weight in the Draft EIR. S210-25

v. Anticipated thermal discharge exceeds Ocean Plan limits

Section 4.7.4 (at page 4.7-50-51) states that the FSRU will discharge cooling water at temperatures about 28° F warmer than the ambient seawater. The California Ocean Plan, however, establishes a thermal discharge limit of 20° F above ambient temperatures. The document also states that the thermal plume would dissipate relatively quickly, so that temperatures would be no more than about 2° F above ambient about 800 feet from the FSRU. Still, there would likely be a continuous plume of discharge water more than 20° F above ambient temperatures within several dozens of feet of the FSRU. Please investigate feasible mitigation measures that would reduce the temperature of the project's thermal discharge to within the standards set by the California Ocean Plan. S210-26

vi. Desalination

On page 4.18-28, the Draft EIR states that the facility would use two desalination units processing about 740 gallons per hour to produce potable water. However, the Draft EIR does not describe what chemicals would be used in the process and what would be contained in the brine discharge from the desalination process. This information should be included in the document with a discussion of potential effects and levels of impact. S210-27

S210-23 Continued

S210-24
The CalCOFI database was created using a standard sampling protocol that does not allow for analysis of discrete depth intervals for ichthyoplankton. The analysis suggested in the comment is not possible because, despite an extensive search of available scientific literature, no other source of data was identified.

S210-25
The discussion of the report referenced in the comment was removed from Section 4.7 because other reports were considered to be more relevant.

S210-26
The lead agencies disagree with this interpretation of the applicability of the California Thermal Plan; however, as a condition of the National Pollutant Discharge Elimination System (NPDES) permit, the USEPA would limit the temperature for cooling water discharge to a maximum of 20°F above ambient temperature at the point of discharge and would allow a maximum increase of 4°F above ambient temperature 1,000 feet down current from the discharge point (see Appendix D6). The Applicant has modified the Project to comply with these requirements. Sections 4.18.2 and 4.18.4 contain revised information on the thermal plume discharge.

S210-27
The Project has been modified since issuance of the March 2006 Revised Draft EIR. See Section 1.4.2 for a summary of Project changes. "Potable Water" in Section 2.2.2.6 contains information on this topic. Water from the submerged combustion vaporizers would be the primary source of potable water. Brine would be discharged from the backup desalination units in accordance with a facility-specific NPDES permit.

vii. Biomass Discharge

Biomass discharge is an unstudied effect, and it is not accurately portrayed in the Draft EIR (p. 4.7-52). It is not clear what effect this discharge would have on the structure of the nearby biotic community, and it is also not clear what effect this discharge would have when combined with the thermal discharge. The document should discuss these issues in more detail, and should disclose the areas of uncertainty. S210-28

viii. Section 4.7.3.1, page 4.7-36, Bullets 4 & 5. S210-29

These criteria establish significant impacts to marine biology based on either a one-month or a one-year time period. What is the biological basis for these periods? We recommend either deleting the time-based criteria and replacing them with biologically-based criteria, or clarifying the connection between the one-year/one-month periods and specific biological concerns. We recommend making the following changes to the text:

"Destroy or ~~disturb on a long-term basis (more than one year)~~ alter biological communities or ecosystem relationships";

"Change marine biological resources ~~for periods~~:
~~Longer than a month for~~ Due to toxicological impacts, e.g., those caused by oiling events or toxicity caused by the discharge of drilling fluids and cuttings.
~~Longer than one year for~~ Due to impacts caused by habitat disturbance, e.g., construction activities, habitat reduction, e.g., damage to hard-bottom ~~structures~~ habitat during construction activities."

ix. Table 4.7-7, page 4.7.34

We recommend that Coastal Act Section 30231 be added to the list of applicable regulations. Section 30231 of the Coastal Act states: S210-30

> The biological productivity and the quality of coastal waters, streams, wetlands, estuaries, and lakes appropriate to maintain optimum populations of marine organisms and for the protection of human health shall be maintained and, where feasible, restored through, among other means, minimizing adverse effects of waste water discharges and entrainment, controlling runoff, preventing depletion of ground water supplies and substantial interference with surface waterflow, encouraging waste water reclamation, maintaining natural vegetation buffer areas that protect riparian habitats, and minimizing alteration of natural streams.

x. Section 4.7.4, page 4.7-51, line 15

We suggest the text be changed to read: "…plankton communities ~~may~~ will be affected…" S210-31

xi. Appendix H-1, p. 3, paragraph 2, line 11

We suggest that the word "entrainment" be changed to "impingement."

S210-28
The biomass discussion in Section 4.7.4 has been updated.

S210-29
The USCG and CSLC believe that these significance criteria are appropriate, and that the time periods suggested (one month for toxicological impacts and one year for habitat disturbance) reflect well established (see Section 4.7 References) marine species response times and lifecycles. Therefore, the suggested edits were not made.

S210-30
The suggested material has been added.

S210-31
The cooling water discharge discussions in Section 4.7.4 and Appendix H1 have been revised to reflect reductions in seawater requirements made subsequent to the issuance of the March 2006 Revised Draft EIR, and thus the first suggested edit is no longer applicable. The second suggested edit was not made because Appendix H1 accurately refers to a low flow rate and screening which would reduce entrainment of aquatic organisms within the intake volume.

b. Spills

i. Impact BioMar-8, page 4.7-71

S210-32

Although Draft EIR Impact BioMar-8 includes a very general discussion of oil spill effects on marine animals, it does not provide a specific worst-case scenario and potential impacts analysis. A more detailed analysis should be included examining impacts to marine mammals in the event of an oil spill from the oil that is proposed to be stored on the FSRU, or from the fuel oil tanks on the LNG carriers.

Please include a discussion of the risk of oil spills and potential impacts to marine mammals from operational activities. This discussion should include: the worst-case scenarios for spills from the FSRU's oil tanks and from the oil tanks on the LNG carriers; spill trajectories and environmental consequence analyses specific to the project area for the worst-case spills from the FSRU (and vessels if applicable); and prevention and response measures to avoid or minimize a worst-case oil spill.

Please use and discuss the same scope of impacts in BioMar-8: Marine Mammals that is used in BioMar-6: Marine Biota. The risk of worst case accidental spills from the oil and other hazardous substances on the FSRU and the LNG carriers should be the same for the marine biota and marine mammals, although the potential impacts may be different. Also, please discuss potential impacts to marine mammals from accidental oil or hazardous substance spills from the project's proposed construction vessels and activities.

c. Underwater Noise and Marine Mammals

S210-33

In the section Impact BioMar-5: Noise Disrupting Marine Mammal Behavior, the Draft EIR tends to arbitrarily extract, oversimplify, and/or mischaracterize information contained in the more thorough technical appendix ("Entrix 2004.")

i. Ambient Sound

Citing Entrix 2004, the Draft EIR (p. 4.7-54) states ambient noise at the project site ranges from 90 dB-110 dB (re 1 μPa @ 1 m). Entrix 2004, however, has two discussions of ambient noise. First, the document cites the Navy Point Mugu Sea Range EIS in stating ambient noise is 50-55 dB (in areas "3A" and "3D", which are very near the project site, and which Entrix 2004, p. 6, specifically states: "… would be indicative of the noise level in the Project area."). However, the document follows with a contradictory paragraph citing "Woodside 2002" (which we do not have a copy of) stating ambient noise ranges from 90 dB-110 dB.

Notwithstanding this internal inconsistency, ambient noise cannot be so simply characterized. Most experts cite the commonly relied-on "Wenz curve" to show the varieties, levels, and frequencies of sound. The Wenz curve shows ambient noise at 90 dB at the lowest end of the spectrum (1 Hz); however, please note:

- The highest ambient levels (1-20 dB) are notoriously difficult to measure (Richardson, *et al.* 1995 states: "Many reports do not include frequencies below 10-20 Hz, or include data of dubious accuracy");

S210-32
Impact BioMar-8 in Section 4.7.4 has been updated to reflect oil spill modeling for tugboats and service vessels during operation.

S210-33
Impact BioMar-5 in Section 4.7.4 contains updated information on potential noise impacts on the marine environment and mitigation measures to address such impacts. The information used to develop these analyses was based on guidance furnished by NOAA.

- As shown in Table 4.7-10 (p. 4.7-56), very few marine mammals can hear frequencies < 20 Hz;
- There is a tremendous range and variability of ambient and other underwater sounds, from moment to moment, varying in frequency, changing due to depth, underwater topography, sea state, and wind conditions, and with an overall curve (again, the "Wenz" curve) showing that as frequency rises from 1 Hz to >10 kHz, the lowest ambient levels decrease from 90 dB to 20 dB;
- Areas of heavy shipping can reach 90 dB as an ambient level at the frequency range of <100 Hz, with lower levels in higher frequency ranges; however, not all marine mammals are sensitive to <100 Hz sound. The discussion on p. 4.7-54 states that shipping noise would raise the ambient levels to "closer to 108 dB re: 1 μPa – rms." This figure does not appear to be justified, unless it has been measured, which does not appear to be the case based on the discussion. If it has been measured at this site or in the area, the depth of the measurement and the frequency range needs to be provided for the information to be useful. Also, Entrix 2004 states (p. 7) that, "Ambient noise level due to ship traffic may be nominally 75 DB re 1 μPa squared per Hz @ 100 Hz," which would appear to contradict the "… closer to 108 dB…" statement.

S210-33 Continued

ii. Marine Mammal Concentrations

The Draft EIR, p. 4.7-54, states "Moreover, extensive NOAA Fisheries surveys over many years have failed to turn up any such [marine mammal] species in the Project area (Howorth 2006)." The Navy's Point Mugu Sea Range EIS (which the Draft EIR appears to be aware of, because it is cited it in Entrix 2004) provides the results of numerous NOAA Fisheries surveys. While the Navy EIS confirms that sperm whales, humpback whales, and beaked whales tend to congregate in the upwelling areas west of Anacapa and San Nicolas Islands, it also shows fin whales, northern elephant seals, and heavy concentrations of California sea lions, common dolphins and gray whales, in the project area. In fact, the project would appear to be fairly directly within one of the three "prongs" of the gray whale migration path as they swim between Pt. Conception and San Diego. This information would appear to fairly clearly refute the statement on p. 4.7-54.

S210-34

iii. Construction Equipment

The table on p. 4.7-60 presents only a partial list of construction equipment, and it provides insufficient data to enable reviewers to interpret it. Entrix 2004 contains four tables of construction equipment, only one of which is shown in the main body of the Draft EIR. Most importantly, the main document omits FSRU system construction equipment noise levels. Moreover, without information indicating sound duration from the equipment, it is impossible to predict impacts. Obviously, a one time 180 dB impulse will have a far smaller impact that repeated impulses at the same level. Since the difference in threshold criteria is so great between impulse and continuous noise, it is critical to accurately characterize the noise duration so the correct threshold (or some combination of continuous and impulse thresholds) can be applied.

S210-35

iv. Operational Impacts and Marine Mammal Monitoring

The operational noise issue that would appear to be of greatest potential concern is the operation of the FSRU. The Draft EIR indicates that when thrusters are off the noise levels would be in the

S210-33 Continued

S210-34
Section 4.7 contains updated stock assessments for marine mammals in the Project vicinity according to the latest available information from NOAA. In addition, marine mammal experts (see Appendix I) have been consulted regarding potential impacts and mitigation, and based upon their expertise, text in Section 4.7 has been clarified.

S210-35
See the response to Comment S210-33.

S210-36

range of 180 dB, and when they are on (2 hrs./wk.) 192.6 dB (broadband noise). The document should provide the basis for the assumption that 2 hrs./wk. is a reliable figure. Even if accurate, if the continuous noise is approximately 180 dB, and falling to 122 dB at a range of 1 km., this would expose an area of at least approximately 10 km^2 to levels above NOAA Fisheries threshold criteria for continuous noise (i.e. $\geq$120 dB). While we agree that some impacts to gray whales will be avoided with the mitigation proposal to avoid construction during the gray whale migration period, the discussion of operational impacts is inadequate, given: 1) the proximity to the gray whale migration path; 2) the fact that NOAA Fisheries generally relies on 120 dB for continuous noise as a Level B harassment "take"; 3) the fact that a received level of 140 dB has been documented to be sufficient to cause gray whales to deviate from their migration route and show an avoidance reaction; and 4) the fact that operational impacts would be much longer lasting.

S210-37

The Draft EIR indicates that some level of marine mammal monitoring should occur; however it does not provide any criteria for how this would be conducted, who would monitor, what equipment would be used, whether monitoring would occur at night (or low visibility conditions), whether night lighting would be used, and, most importantly, what contingency measures would be in place in the event monitoring indicates adverse effects. Without knowing whether noise levels would be reduced in the event impacts are documented, it is hard to understand the basis for the conclusion (on page 4.7-64) that impacts would be reduced, "to a level below significance criteria." It is also hard to understand the basis for the statement that follows (p. 4.7-64) that, "No impulse sounds are anticipated during normal construction and operational activities." In addition, the Coastal Commission is not mentioned as one of the agencies (listed on page. 4.7.63) to review the monitoring plan once it is compiled. We will expect to be part of the monitoring program development and protocols.

S210-38

The Bahamas 2000 stranding established that received levels of well below 180 dB can have adverse, and even lethal, consequences. In its ongoing efforts to implement a more complex set of criteria acknowledging different species needs and a greater variety of types of sound, NOAA Fisheries is likely to lower thresholds for beaked whales compared to other marine mammals. While beaked whales have not been identified by NOAA Fisheries surveys in the immediate project area (based on the above Navy EIS), these are among the most difficult whales to observe (and little to nothing is known about their hearing sensitivities). Accordingly, for any marine mammal monitoring program that is put in place, we would request that particular attention be paid to include special efforts to detect beaked whales.

v. Cumulative Impacts

S210-39

The Draft EIR summarily dismisses any concerns over cumulative impacts, as long as individual impacts are monitored. We agree that monitoring is important, given the project's proximity to the vessel traffic lanes, offshore oil and gas development, military testing on the Navy Point Mugu Sea Range, and possible new or expanded Navy underwater submarine training in the southern California Bight. However, there is increasing evidence generated over the past decade that underwater anthropogenic noise is steadily increasing and can disturb marine mammals. The cumulative impacts discussion should be expanded to express concerns over the data gaps and uncertainties in available information; for example, information gaps related to the potential

S210-36
See the response to Comment S210-33.

S210-37
Impact BioMar-5 in Section 4.7.4 has been updated. As discussed in MM BioMar-5b, the Acoustic Monitoring Plan would include the following elements:
- Obtain pre-construction, site specific data;
- Obtain seasonal measurements at the Project site before construction begins. Concurrently, measure levels of natural ambient sound at the sampled depths in a variety of sea states. Measure sounds of various vessels as they pass the Project site in the nearby shipping lane;
- Take empirical measurements of operational sound;
- Document behaviors of marine mammals exposed to operational noise, and concurrently measure sound levels from Project operations received by the marine mammals, and;
- Evaluate acoustic monitoring results against NOAA Fisheries (NMFS)-accepted sound thresholds.

Specifics of the acoustic monitoring plan will be determined during consultation with appropriate regulatory agencies.

S210-38
Appendix I contains the results of consultation with NOAA Fisheries.

S210-39
Impact BioMar-5 in Section 4.7.4 contains an updated discussion of marine mammal impacts from noise, including an analysis of the potential for Level A and B takes under the MMPA using the current guidelines. This analysis uses estimated background noise levels as a baseline, and thus takes into account the already heavily ensonified waters in the Southern California Bight. The discussion of cumulative noise impacts in Section 4.20.3.7 has been clarified to acknowledge potential overlap with Point Mugu activities under some operating scenarios.

impacts of sound on the marine environment, and the potential for harm to occur before it is detected. This section should also discuss efforts currently being implemented to reduce "take" thresholds, to provide for region-wide monitoring of increases in and the effects of anthropogenic noise, to increase the value and objectivity of marine mammal/noise research efforts, and to improve strandings responses and networks. S210-39 Continued

d. Collision between Project Vessels and Marine Mammals

Mitigation measure AM BioMar-9b notes that vessels should "[m]aintain the same speed as the whales." Laist et al. (2001)[1] compiled descriptions of 58 collisions between vessels and whales to assess contributing factors. This study indicates that all sizes and types of vessels can hit whales; most lethal or severe injuries are caused by ships 80m or longer. Whales usually are not seen beforehand or are seen too late to be avoided, and most lethal or severe injuries involve ships traveling 14 knots or faster. In areas where special caution is needed to avoid such events, measures to reduce the vessel speed below 14 knots may be beneficial. Therefore, Mitigation Measure AM BioMar 9b should be revised (or a new measure added) to include a specific vessel speed limit for all vessels operating within US waters to reduce the potential for vessel collisions with marine mammals. S210-40

8. Terrestrial Biological Resources

a. HDB Installation Impacts on Coastal Dune Habitat

The Draft EIR states, "…Multiple coils or an antenna may be set by the HDB contractor at selected locations along the bored alignment. The coils or antenna may be set on the beach, the sea floor, or the deck of a barge. To increase surveying accuracy for the depths required on the Cabrillo Port Landfalls, the coils or antenna may extend outside of the pipeline corridor." Previous experience in coastal HDD activities for fiber optic cable shoreline crossings has shown that during HDB installation, the contractor will need to spread multiple coils or an antenna along the bore alignment. This will require some disturbance of sensitive coastal dune habitat and potential disturbance of the Western snowy plover. This potential impact, and ways to mitigate it, should be evaluated in the Terrestrial Biology section. S210-41

Also, a mitigation measure should be added to ensure that installation of the HDB antenna or coils do not affect sensitive habitats such as that of the Western snowy plover. If that potential exists, mitigation measures, such as restricting boring to non-nesting seasons, should be identified. Also, the spatial extent of antenna corridors within the coastal dunes should be located to avoid impacts to the surface vegetation that stabilizes the dunes.

9. Hazardous Materials

a. Table 4.12-2, page 4.12-6. Line 1, column 1, USCG regulations

Please add reference to the USCG Vessel Response Plans and USCG Non-Tank Vessel Response Plans, which will be required for the tugs and supply/crew boats, and LNG carriers if they carry any fuel oil. S210-42

[1] Laist, D.W., A.R. Knowlton, J.G. Mead, A.S. Collet, and M. Podesta. 2001. Collisions between ships and whales. *Marine Mammal Science* 17:35–75.

S210-39 Continued

S210-40
AM BioMar-9b is an Applicant measure, and as such contains those protocols already incorporated into the proposed Project. In addition, the LNG carriers will operate entirely within the Exclusive Economic Zone of the U.S.

S210-41
The paragraph referred to in the comment (see Section 2.6.1) further states that if the use of a coil or antenna would affect sensitive habitats, other techniques would be used within the drilling system and surface directional controls would not be used.

S210-42
The suggested change has been made to Table 4.12.2.

b. Page 4.12-8, top row of table 4.12-2. S210-43

The OSPR agency name should be Office of Spill Prevention and Response, instead of Office of Oil Spill Prevention and Response. "Oil" is no longer part of the agency name.

c. Page 4.12-12, lines 1-35: Impact Haz.-1; Release of Oil or Hazardous Materials and Contamination to Marine Environment. S210-44

Commission staff agrees that the mitigation measures (i.e., Facility Response/SPCC Plan and Vessel Response/SOPEP plans) will greatly minimize the chance of a spill of hazardous materials, but the risk of spills remains. What is the significance threshold to determine what level of risk is "below the significance criteria?" This conclusion also seems internally inconsistent with the conclusions for Impact BioMar-6 and –8, as discussed above. Please explain.

10. Water Quality

a. HDB Drill Mud Release Behavior – Planned Releases S210-45

The revised Draft EIR mischaracterizes the behavior of drill mud releases and underestimates potential water quality impacts associated with HDB activities. As noted in the Draft EIR:

> …Direct measurements of seafloor frac-outs (releases of drilling fluids) have demonstrated that, upon release, the warmer drilling fluid can extend upward into the cooler water column where buoyancy-induced turbulence disperses the drilling fluid, and currents transport the dilute mixture well away from the discharge point (Coats 2003).

This drill mud behavior was observed during the installation of six shallow water conduits for fiber optic cable shoreline crossings in Morro Bay, CA. The Draft EIR mischaracterizes the behavior of drill mud by noting:

> This tendency, however, is more likely to occur in deeper water associated with oil and gas drilling. For the proposed Project, the temperature differential between the drilling fluids moving through relatively shallow formations under the sea floor is likely to be similar to that of the seawater. Therefore, buoyancy of escaped drilling fluid would be less than occurs at typical deep water drilling sites.

The Morro Bay borings exited the sea floor at a water dept of 10 meters (33 feet), which is quite similar to the proposed project. In addition, the drill mud temperature would not be similar to seawater due to the friction associated with boring through the subsea formation. Drill mud is used as a lubricant and a heat transfer fluid to prevent damage to the HDB bore head and pipe.

The Draft EIR should be revised to provide a clear and accurate description of potential impacts associated with planned drill mud releases when the bore head daylights from the sea floor. The revised analysis should evaluate potential impacts associated with the release of 10,000 gallons of drill mud into the water column.

S210-43
The recommended change has been made throughout the Final EIS/EIR.

S210-44
The analysis conducted in Section 4.12.4 addresses impacts under normal operating scenarios. The significance criterion used to evaluate Impact HAZ-1 is cited in Section 4.12.3: "Use, store, or dispose of oil and/or hazardous materials in a manner that results in a release to the marine or terrestrial environment in an amount equal to or greater than the reportable quantity for that material or creates a substantial risk to human health." Under normal operating conditions, there is no expectation that this significance criterion would be exceeded.

The spills analyzed in BioMar-6 and BioMar-8 are worst case scenarios. Since compliance with legal spill response requirements and with implementation of the mitigation measures outlined in Sections 4.12 and 4.7 is presumed, these worst case scenarios would not be expected to occur.

S210-45
Section 4.18.4 has been revised to clarify the assessment of drilling mud behavior and the volume of drilling mud that would potentially be released.

b. HDB Drill Mud Release Volume

There appears to be an inconsistency in the amount of drill mud that could be released in the "HDB Anticipated Drill Fluid Loss Capture" analysis contained in Appendix D4 of the Draft EIR. The document *Preliminary Construction Procedure And Design For Horizontally Directionally Bored Pipeline Landfall* dated 07/08/2005, estimates that 10,000 gallons of drill mud would be released per boring. The updated February 16, 2006, version changes this value to 5,000 gallons per boring, consistent with the analysis in Section 4.18 of the Draft EIR, which had assumed a total release of HDB-related drill mud of 10,000 gallons. The change in drill mud release volume appears to be arbitrary and does not seem to be supported by any information in the Draft EIR. Therefore, the Draft EIR should be revised to include the calculation and supporting document for the amount of drill mud that will be released for each HDB boring. Should the volume differ from the 5,000-gallon release volume assumed in the Draft EIR, the Draft EIR Water Quality (Impacts Wat-2 and Wat-3) and Marine Biology (Impacts BioMar-1 and BioMar-2) analyses should be revised accordingly.

S210-46

S210-47

c. State Thermal Plan and Ocean Plan Water Discharge Requirements

The enforceable policies of California's certified coastal management program include the Water Quality Control Plan for Control of Temperature in the Coastal and Interstate Waters and Enclosed Estuaries of California ("Thermal Plan"), and the Water Quality Control Plan for Ocean Waters of California ("Ocean Plan"). The Commission has in the past required that offshore oil and gas platforms located in federal waters meet the standards set in these plans.

S210-48

The Draft EIR analysis mentions both plans in the regulatory setting section, but fails to demonstrate compliance with these plans. Based on the Draft EIR analysis, the project would violate components of both the Thermal and Ocean Plans. (For example, see our comment at 7.a.v above) Therefore, the Draft EIR should be revised to fully evaluate project compliance with the California Thermal and Ocean Plans, and identify all feasible mitigation to reduce potential impacts where the project would exceed acceptable water quality thresholds that are identified in these plans.

S210-49

Thank you for the opportunity to comment on the March 2006 Revised Draft EIR. Please contact me at (415) 904-5249 or at amccombs@coastal.ca.gov if you have any questions or would like additional information.

Sincerely,

Audrey McCombs
Coastal Program Analyst
Energy and Ocean Resources Unit

S210-46
Section 4.18.4 has been revised to clarify that 5,000 gallons of drilling fluid could be released from each exit borehole.

S210-47
Both versions of the Cherrington report intended 5,000 gallons per borehole. In the July 2005 version, the 10,000 gallons referred to the total loss of drilling fluids from both boreholes. The February 2006 version was more specific and stated the estimated drilling fluid lost from each of the two boreholes, which totals 10,000 gallons.

S210-48
The lead agencies disagree with this interpretation of the applicability of the California Thermal Plan; however, as a condition of the National Pollutant Discharge Elimination System (NPDES) permit, the USEPA would limit the temperature for cooling water discharge to a maximum of 20°F above ambient temperature at the point of discharge and would allow a maximum increase of 4°F above ambient temperature 1,000 feet down current from the discharge point (see Appendix D6). The Applicant has modified the Project to comply with these requirements. Sections 4.18.2 and 4.18.4 contain revised information on the thermal plume discharge.

S210-49
The Project has been modified since issuance of the March 2006 Revised Draft EIR. See Section 1.4.2 for a summary of Project changes. A closed loop tempered water cooling system, which recirculates water, would be used instead of a seawater cooling system, except during annual maintenance (four days for the closed loop tempered water cooling system, and four days for the Moss tanks when the inert gas generator [IGG] would be operating).

Because seawater would only be used as non-contact cooling water during these maintenance activities, the volume of seawater used would be greatly reduced. Seawater would also be used for ballast. Section 2.2.2.4 describes the proposed seawater uptakes and uses for the FSRU. Appendix D5 describes seawater intakes and discharges during Project operations, and Appendix D6 describes the closed loop water system and provides thermal plume modeling analysis of discharges from the backup seawater cooling system.

When either the backup seawater cooling system or the IGG are operating, the temperature of the discharged seawater would be elevated above ambient temperatures no more than 20°F at the

point of discharge and would be 1.39°F at 300 m from the point of discharge during the worst case scenario. These thermal discharges would comply with the California Thermal Plan (see Sections 4.7.4 and 4.18.4 and Appendix D6).

S210-50
Responses to comments in this attached letter from the Port Hueneme Harbor Safety Committee are contained in 2006 Comment Letter L221.

PORT HUENEME HARBOR SAFETY COMMITTEE
Mandated by
California Oil Spill Prevention and
Response Act of 1990

May 5, 2006

Mr. Dwight E. Sanders
California State Lands Commission
100 Howe Avenue, Suite 100-South
Sacramento, CA 95825

Subject: Comments on the *March 2006 Revised Draft Environmental Impact Report for the Cabrillo Port Liquefied Natural Gas Deepwater Port,* State Clearinghouse # 2004021107. S210-50

Dear Mr. Sanders:

The Port Hueneme Harbor Safety Committee (HSC) was established in 1991, under the mandate of the California Oil Spill Prevention and Response Act of 1990 (Government Code Division 1, Chap. 7.4, Article 3, Sections 8670.23 – 8670.24). Pursuant to Government Code §8670.23.1, the HSC is responsible for planning the safe navigation and operation of tankers, barges, and other vessels within the Port Hueneme harbor.

Therefore, the Port Hueneme HSC has reviewed *Section 4.3 Marine Traffic* of the *March 2006 Revised Draft Environmental Impact Report for the Cabrillo Port Liquefied Natural Gas Deepwater Port* for information about the proposed project and its potential impacts on the safety and navigation of the vessels (*e.g.*, cargo, fishing, recreation, oil supply) that transit to and from the Port of Hueneme.

We respectfully submit our comments on the attached pages. Please note we have included Addendum 1 in support of the comments from the fishing community who are represented on the Port Hueneme Harbor Safety Committee.

If you have any questions please feel free to call me at 805-933-2110.

Thank you for your consideration.

Sincerely,

Captain Andrew Harvey, Chairman
Port Hueneme Harbor Safety Committee

Post Office Box 608, Port Hueneme, CA 93044
105 Hueneme Road, Port Hueneme, CA

PORT HUENEME HARBOR SAFETY COMMITTEE
COMMENTS ON:

SECTION 4.3-MARINE TRAFFIC* OF THE *MARCH 2006 REVISED DRAFT ENVIRONMENTAL IMPACT REPORT FOR THE CABRILLO PORT LIQUEFIED NATURAL GAS DEEPWATER PORT
(State Clearinghouse # 2004021107)

1. **Inaccuracies in Table 4.3.-1: Average Vessel Traffic Transits, page 4.3.-5, 6 (Section 4.3.1.1 Existing Vessel and Proposed Traffic).**

   a. *The vessel traffic numbers are incorrect. The number of cargo ships transiting to/from Port Hueneme has increased. Ship transit estimates need updating to 2005/2006 numbers (or most recent).*

      (1) The "number of ships per year" and "number of transits" for all the categories (*e.g.,* fishing, commercial traffic into Port Hueneme, Navy) are based on 2003 statistics, and do not reflect the much higher 2005 traffic volumes. Please update all the vessel categories with 2005/2006 figures, or most recent figures. For example, Port of Hueneme total traffic for 2005 was 400 ships, versus the 243 ships reported in Table 4.3-1. Contact Oxnard Harbor District/Port of Hueneme, USCG, SoCal Marine Exchange, Navy, Ventura County Commercial Fishermen's Association, and Western States Petroleum Association for latest statistics.

      (2) "Merchant Vessel Using Coastal Traffic Lanes" category implies that tanker traffic to/from the North to LA/LB uses the TSS for it's entire length. This is not the case. This traffic (for the most part) departs the TSS and transits south of the Channel Islands thus crossing the inbound/outbound routes of the LNG vessels to the FSRU. These crossing situations need to be discussed.

   b. *Table reorganization suggestion*

      (1) Place the "LNG carriers…" and "Supply Vessels…" categories at end of table, and rename them as "Proposed LNG…" and Proposed Supply…" This will more clearly separate the Project's proposed/estimated vessel traffic from the real/actual number of other existing vessel traffic.

2. **Impacts on Existing Vessel Traffic Patterns Coming Into Port Hueneme from the Proposed LNG Carrier Route(Section 4.3.1.1 or 4.3.1.3).**

   Figure 4.3-2 on page 4.3-9, Page 4.3-12, lines 20-36, page 4.3-31, lines 36-42 indicate that the preferred route for the LNG carriers would avoid the LA/LB VTS and the Santa Barbara TSS lanes. Instead, the LNG carriers propose to use the West Tanner Bank approach route,

which would put vessels through a small portion of the SOCAL Range Complex and the Point Mugu Sea Range, (unless due to military testing operations the Navy directed them to use the alternate Outer Santa Barbara Passage approach route). In addition, the cargo vessels traveling through the proposed Area to be Avoided (ATBA) zone surrounding the FSRU (2.3 mile radius) will be required to slow to 10 knots per hour.

The DEIR does not provide adequate discussion of potential impacts of the proposed LNG carrier route and the ATBA zone on the routes and traffic patterns of the other cargo ships that call directly at Port Hueneme (*e.g.,* banana boats, car carriers). As stated in Comment 1 above, there has been a significant increase in vessel traffic into Port Hueneme (400 ships called in 2005). There are potential traffic congestion and vessel safety issues should the cargo vessels find it necessary to re-route themselves to avoid the LNG carriers in transit.

For example:

(1) Although the LNG preferred proposed route may minimize interference with coastwise commercial traffic in the TSS lanes, it has the potential for significant routing impacts for cargo ships calling at Port Hueneme (*e.g.,* banana boats, car carriers). These vessels currently transit along the same general West Tanner Bank/Point Mugu Sea Range approach route that is proposed for the LNG carriers (DEIR Figure 4.3.-2, page 4.3-9). It is estimated that the LNG carriers will visit the FSRU 2-3 times a week (104 -130 visits per year), so incoming plus outgoing transits across the Point Mugu Sea Range may total 4-6 per week and 208-260 per year. Cargo ships that have traditionally used Port Hueneme (via the routes also preferred by LNG) may need to re-route themselves when the LNG carriers are in transit. Depending on the re-route approach used by the cargo vessels there may be impacts on the traffic congestion at new locations of the Santa Barbara Channel TSS lanes, thereby affecting traffic safety conditions. Please discuss this more fully in the EIR.

(2) In addition to the potential impacts caused by the LNG carrier traffic routes that are discussed in Comment (1) above, the proposed ATBA surrounding the FSRU will require vessels transiting the ATBA to reduce their speed to 10 knots. This required reduction in vessel speed may cause the cargo ships to re-route around the ATBA, and therefore has the potential to create additional traffic congestion and vessel safety issues for the ship traffic in the Santa Barbara TSS lanes, if the re-routed vessels begin entering the TSS lanes at a new location further south. Please discuss this more fully in the EIR.

3. Risks and Hazards of Natural Gas Powered Tug/Supply Vessels and Crew Boats.

Line 6, page 4.3-12, line 1 states that the tug/supply vessels will have 15,000 BHP engine fueled by natural gas. The Port Hueneme HSC has the following comments about the safety of these natural gas tanks when the tug/supply vessels and crew boats are docked in port. Please address these comments in EIR Section 4.3, or if they are addressed in another EIR section, please provide reference to that section in Section 4.3.

Comments/Questions:

(1) Has this size of tug/supply vessel and crew boat, with natural gas fuel tanks, been built, tested, and used anywhere else in the world? Or, is this the first time that this type of tug and crew/supply vessel will be built?

(2) What is the risk of explosion or spill from the tanks onboard the tug/supply vessel and the crew boat? What is the accident history and safe operations history for this type of tug/supply vessel and crew boat?

(3) Has a safety analysis and worst case "natural gas" explosion/spill scenario been done in the event of an accident to the tug/supply vessel or crew boat while it is berthed at Port Hueneme?

(4) How many and what size tanks need to be on board for storing the natural gas fuel? How much natural gas fuel needs to be stored for the estimated 2 week fueling supply?

4. Proposed Tug/Supply Vessel and Crew Boat Traffic Routes to/from Port Hueneme.

Page 4.3-13 Line 9 and page 4.3-21, line 11 indicate that the BHP tug/supply vessels and crew boats would use the appropriate designated Santa Barbara TSS traffic lanes and exit the TSS near their destination (FSRU or Port Hueneme) in accordance with rules of the road. It is estimated that there will be a maximum of 10 transits per week.

If the smaller tug/supply vessels and crew boats transit inside the TSS they may add unnecessary congestion and may interfere with the larger cargo ships exiting the TSS at Port Hueneme.

There are two "schools" of thought regarding vessel safety and traffic between the tug/supply vessels and crew boats and the larger commercial cargo ships:

- Since the tug/supply vessels and crew boats are fairly small they may be better off doing a direct crossing of the TSS and using an inshore route, to and from the FSRU to avoid extended interaction with larger vessels in the TSS.
- Alternatively, by keeping the small vessels in the TSS their route will be clear to all for a larger portion of all vessels (fishing, recreational) which may not be equipped with AIS. Thus, experience may be the best way to decide the final route.

The DEIR does not provide enough information on the potential spill/explosion risks and hazards from the natural gas fuel tanks powering the tug/supply vessels and crew boats (see Comment 3). This information is needed to determine the safest route for the tug/supply vessel and crew boat transits to Port Hueneme.

Comments:

Please include discussion of the risks and hazards of the natural gas powered tug/supply vessels and crew boats (see Comment 3) and consideration of the following two options:

(1) Please have the EIR consider the alternative of having the BHP tug/supply vessels and crew boats transit to/from the FSRU using a 90 degree path to cross the TSS

lanes and then transit to/from Port Hueneme on a path adjacent and parallel to the TSS lanes (between shore and TSS lanes), turning into the Port Hueneme access route at the Port Hueneme sea buoy.

(2) As an alternative, the TSS lane route could be used for a trial period with acommitment by BHP to try the other suggested transit path (above) if monitoring indicates a risk for vessel collisions and impacts to the larger commercial ship traffic calling at Port Hueneme.

5. FSRU's Marine Traffic Monitoring System.

The LA/LB VTS system extends 25 nautical miles (29 miles) from the Point Fermin lighthouse. It does not provide traffic control in the Santa Barbara Channel TSS or extend to the proposed FSRU location (DEIR page 4.3-11). To avoid potential collisions with other vessels, the FSRU will have its own marine traffic monitoring system that will monitor the incoming and outgoing LNG carriers (DEIR page 4.3-32 lines 5-14).

Comment:

(1) Will the FSRU's marine monitoring system be compatible and consistent with the LA/LB VTS? Will it be able to tie into and transmit information to the LA/LB VTS? Will it be able to act as an expansion of the USCG VTS, so that the USCG and SoCal Marine Exchange can forewarn ships leaving LA/LB and heading north about potential LNG vessel traffic issues? Will the FSRU marine monitoring system provide reports to the USCG? Please clarify.

ADDENDUM 1

- **Impacts on Commercial Fishing Vessel Safety and Traffic.**

The Port Hueneme HSC appreciates BHP's commitment to direct tug/supply vessel and crew boat traffic into the Joint Oil/Fisheries Committee of South/Central California (JOFLO) vessel corridors within 30 fathoms (180 feet) of shore to minimize/avoid impacts and interactions between FSRU support vessel traffic and the commercial fishermen activities (Mitigation Measure AM-MT-2c, page 4.3.-33, lines 7-16 and 26-31).

However, the DEIR does not provide sufficient discussion about the potential impacts to fishing vessel safety and traffic activities caused by the proposed LNG carrier routes through the West Tanner Fishing Banks and the proposed 1640 feet (500 meter) Safety Zone around the FSRU.

Comments:

(1) The West Tanner Banks is one of two major fisheries for southern California fisherman. The proposed LNG carrier route traverses directly through these premier fishing grounds. BHP proposes LNG carrier transits 4-6 times a week (in and out) for a maximum of 208-360 transits a year. For security reasons, no vessel is allowed within a range of 1000 yards of the LNG carrier stern and bow and 500 yards of either side. Consequently, fishing vessels may encounter restrictions to or interruptions of their fishing activities in the area of the LNG carrier route 4-6 times a week. An evaluation of the potential impacts to fishing vessel traffic and activities in the West Tanner Banks from the proposed LNG carrier transits could not be found in DEIR Section 4.3. Please add this type of evaluation in Section 4.3, or if it exists in another section please provide reference to that section.

(2) Page 4.3-2 lines 27-31 describe that a 1,640 foot (500 meter) safety zone will be established around the FSRU location, and that "no fishing grounds are located in the proposed safety zone area." This is not entirely accurate. Depending on the fishing season (e.g., swordfish) commercial and sports fishermen transit and fish in the proposed FSRU area. The DEIR (page 4.3-17) further states that "no non-project vessel could enter the safety zone except due to forces beyond its control, such as heavy weather or equipment failure." If this is accurate, then permanent exclusion of fishing vessel traffic within the 500 meter safety zone will have impacts on commercial and sports fishing vessel traffic and activities. Please add an evaluation/discussion of potential impacts from the safety zone designation on fishing vessel traffic and activities to Section 4.3, or if it is discussed in another DEIR section, please add a reference to that section.

CALIFORNIA
DEPARTMENT OF
EDUCATION

1430 N STREET
SACRAMENTO, CA
95814-5901

JACK O'CONNELL
State Superintendent of
Public Instruction
PHONE: (916) 319-0800

May 12, 2006

California State Lands Commission
100 Howe Avenue, Suite 100-South
Sacramento, CA 95825
Attention: Dwight E. Sanders

State Clearinghouse No.
2004021107

Ladies and Gentlemen:

Safety equals distance. This iron rule applies to a number of hazards in our environment, but to few more than to high-pressure and high-volume natural gas and refined petroleum pipelines. For this reason, the California Department of Education, pursuant to the Legislature's mandate that we establish regulations to ensure schoolsite safety, has included this provision in Title 5, Section 14010, of the California Code of Regulations:

> The site shall not be located near an above-ground water or fuel storage tank or within 1500 feet of the easement of an above ground or underground pipeline that can pose a safety hazard as determined by a risk analysis study, conducted by a competent professional, which may include certification from a local public utility commission.

In response to this regulation, the Department has developed a pipeline risk analysis protocol for school districts to use to evaluate the risk posed by pipelines above 80psi within 1500 feet of a schoolsite. We are advised by the industry that a 1500' study zone may not always be sufficient in the case of very large capacity, high pressure lines. I suspect that the pipelines proposed in this project fit into that category, making it prudent if not also necessary to evaluate a location within perhaps 2000' of a pipeline easement.

We are not persuaded by industry arguments that the proposed pipelines will be built to "state safety requirements" for design and construction, nor that they will always be operated without human failing. We are all acquainted with the hubris that sailed the Titanic; we have all seen Murphy's Law in action.

As I testified at the Santa Clarita hearing, we applaud the successful effort by Southern California Gas and BHP-Billiton to relocate a length of the proposed pipeline from Highway 118 that passes by Mesa Union School to a location

S004-1

S004-1
Thank you for the information. Your statement is included in the public record and will be taken into account by decision-makers when they consider the proposed Project.

Figure 2.1-1 identifies the location of the proposed pipeline. Sections 4.13.3 and 4.13.4 contain information on potential impacts on existing and future land uses near the proposed pipeline route and mitigation to address impacts. As discussed in Section 4.13.2.1, "consistency with local land use plans must be viewed within the context of the existing franchise agreements that Ventura County and the Cities of Oxnard and Santa Clarita have with SoCalGas. These franchise agreements grant the right, privilege, and franchise for SoCalGas to lay and use pipelines and appurtenances for transmitting and distributing natural gas for any and all purposes under, along, across, or upon public streets and other ROWs."

The design, construction, and operation of natural gas facilities are highly regulated; the U.S. Department of Transportation's (USDOT) Pipeline and Hazardous Materials Safety Administration and the California Public Utilities Commission's Division of Safety and Reliability have jurisdiction over pipelines. Section 4.2.8 discusses the background, regulations, impacts, and mitigation measures for natural gas pipelines. Section 4.2.8.4 describes Project-specific valve spacing and design requirements.

The proposed pipelines within Oxnard city limits would meet standards that are more stringent than those of existing pipelines because they would meet the minimum design criteria for a USDOT Class 3 location. Also, MM PS-4c includes the installation of additional mainline valves equipped with either remote valve controls or automatic line break controls. SoCalGas operates high-pressure natural gas pipelines throughout Southern California.

Section 4.13.1 contains information on sensitive land uses in proximity to proposed and alternative pipeline routes, such as schools. There are no schools in the immediate vicinity of either of the proposed pipeline routes. Section 4.2.8 describes regulations regarding pipelines, including the requirement to establish public education programs to prevent and respond to pipeline emergencies. Section 4.2.8.4 contains information on the estimated risk of Project pipeline incidents. Section 4.16.1.2 describes emergency planning and response capabilities in the Project area.

As stated in Section 4.13.1.3, "[t]o qualify for State school bond funds, school districts must meet standards established by statute

and regulation (California Code of Regulations Title 5 Section 14010). These regulations require that the school site 'shall not be located near an above-ground water or fuel storage tank or within 1500 feet of the easement of an above ground or underground pipeline that can pose a safety hazard as determined by a risk analysis study, conducted by a competent professional, which may include certification from a local public utility commission.' The State Department of Education recommends the use of its May 2002 draft *Proposed Standard Protocol Pipeline Risk Analysis* to guide the conduct of such a risk analysis after a school site is selected...While this guidance has not been officially adopted, it is the *de facto* acceptable assessment methodology."

Section 14010(h) does not prescribe a minimum setback for proposed school sites from natural gas pipelines, and the existence of a pipeline within 1,500 feet of a proposed school site does not automatically preclude the site from approval. The results of the risk analysis are used to determine the suitability of a proposed school site and would be used to prescribe setback requirements on a case-by-case basis.

S004-1
Continued

farther to the north that should keep the students and teachers out of harm's way. We join the affected school districts in asking the State Lands Commission and all parties to ensure that a safe distance, as determined through the Department of Education's peer-reviewed Pipeline Risk Protocol, from existing and actively pursued schoolsites be maintained. This, in particular, may require that the proposed route from the on-shore terminus be moved to a position south of Hueneme Road in Ventura County. Locational adjustments may be needed in Los Angeles County as well.

Sincerely,

s/

George M. Shaw, Field Representative
School Facilities Planning Division
ph.: 805-692-9913
GShaw@cde.ca.gov

cc: Charles Weis, Ventura County Superintendent of Schools

State of California - The Resources Agency ARNOLD SCHWARZENEGGER, Governor
DEPARTMENT OF FISH AND GAME
http://www.dfg.ca.gov

1416 Ninth Street, 12th Floor
Sacramento, CA 95814
(916) 653-4875

May 11, 2006

Mr. Dwight E. Sanders, Chief
California State Lands Commission
100 Howe Avenue, Suite 100 South
Sacramento, CA 95825

Re: Comments on the Revised Draft Environmental Impact Report for the Cabrillo Port Liquefied Natural Gas Deepwater Port

Dear Mr. Sanders:

The Department of Fish and Game (Department) has reviewed the March 2006 revised draft environmental impact report (RDEIR) for the Cabrillo Port Liquefied Natural Gas (LNG) Project (applicant BHP Billiton LNG International, Inc.). The proposed project is an LNG deepwater port located in 2,900 feet of water, approximately 13.9 miles offshore of Ventura County, California, in federal waters. The project would construct and operate an offshore floating storage and re-gasification unit (FSRU). LNG tankers would deliver and offload LNG to the FSRU which would store the LNG in three spherical tanks, each with a 91,000 cubic meter storage capacity. The LNG would be re-gasified and delivered to the mainland via two new 24-inch diameter natural gas pipelines. The twin pipelines would be approximately 23-miles long and would lie 100 feet apart on the ocean floor until the 43 feet water depth at which point they would be buried via horizontal directional boring (HDB) to the landfall at Ormond Beach, near Oxnard, Ventura County. A metering station, a new 36-inch diameter pipeline from the metering station to the Center Road Station, a new 30-inch diameter pipeline loop in Santa Clarita, and several other on-shore facilities would be constructed to connect the offshore pipeline with the existing Southern California Gas Company intrastate pipeline system. The natural gas would be distributed throughout the southern California region. The RDEIR also discusses a no-project alternative, an alternative deepwater port location in the Santa Barbara Channel, alternative shore crossings, and on-shore pipeline route alternatives.

The California agencies involved in permitting or approving a proposed LNG facility in California have formed the LNG Permitting Interagency Working Group. The Department is a member of that group. The Working Group has met over the last several years to develop and disseminate information on LNG issues, to identify key issues of concern to the state, and to understand each group member's respective role and concerns regarding the construction and operation of LNG facilities in California. While other members of the Working Group will be

submitting individual comments reflecting their agency's particular role, all members of the Working Group wanted to underscore the importance of close communication and early and extensive cooperation among federal and state agencies, thereby assuring a thorough review of all proposed LNG facilities.

The Department is providing comments on this RDEIR as both a trustee and responsible agency. As trustee for the State's fish and wildlife resources, the Department has jurisdiction over the conservation, protection, and management of fish, wildlife, native plants, and habitat necessary for biologically sustainable populations of those species (CEQA Guidelines Section 15386). In this capacity, the Department administers the California Endangered Species Act (CESA), the Native Plant Protection Act, and other provisions of the California Fish and Game Code that afford protection to the State's fish and wildlife trust resources. The Department may also be a responsible agency for a project affecting biological resources where the Department will exercise its discretion after the lead agency, to approve or carry out a proposed project or some facet thereof (CEQA Guidelines Section 15381).

In addition, under California Government Code Section 8670, the Department's Office of Spill Prevention and Response (OSPR) enforces regulations requiring vessels to have Oil Spill Contingency Plans and Certificates of Financial Responsibility. They also require that vessels transferring or lightering oil or oil derivatives be subject to inspection or monitoring during the transfer. All vessels, over 300 gross tons, calling on California must comply with specific requirements to have oil spill response contractors, marine salvage, firefighting, emergency towing and lightering services under contract prior to entering state waters. OSPR is providing recommendations for navigational and vessel safety.

The following statements and comments on the Cabrillo Port LNG RDEIR have been prepared pursuant to the Department's authority as a Trustee Agency and pursuant to our authority as a Responsible Agency over those aspects of the proposed project that come under the purview of the CESA (Fish and Game Code Section 2050 et seq.) and Fish and Game Code Section 1600 et seq. These comments are <u>in addition</u> to those provided in our February 6, 2006 correspondence which addressed the administrative Cabrillo Port LNG RDEIR. S003-1

Terrestrial Resources

<u>Ormond Beach Area Coastline</u>

- Horizontal directional boring (HDB) under Ormond Beach into the Reliant Energy Ormond Beach Generating Station Reliant plant should be conducted outside of the Western snowy plover (*Charadrius alexandrinus nivosus*) and California least tern (*Sterna antillarum brownii*) breeding seasons of March through September. Western snowy plovers and California least terns are listed species, while the least tern is also S003-2

S003-1
Thank you for the information.

S003-2
Section 4.8.4 discusses nesting seasons for bird species of concern, and notes when construction would be prohibited during the nesting season.

designated as a Fully Protected Species (under Fish and Game Code §3511). This designation prohibits take or possession of this species at any time (i.e., no take authorizations from the State are available). Thus, it is imperative that impacts to this species be avoided. We strongly recommend that the lead agency require the applicant to refrain from HDB and associated activities during the time period of March through September.

S003-2 Continued

Center Road pipeline portion of the project

Center Road Valve Station Expansion

- The Center Road Valve Station, at the intersection of Center Road and La Vista Avenue, is proposed, on page 2-49 of the RDEIR, to be expanded by 16,000 ft.^{2}. We could not find an analysis of the potential effect of this expansion on wildlife resources. We therefore request a more detailed description of this aspect of the proposed project, together with an analysis of impacts and appropriate mitigation.

S003-3

Tree Removal

- The RDEIR proposes to mitigate the removal of 6,170 linear feet of non-native trees by replacement at a 1:1 ratio. We acknowledge most of the trees proposed for removal function as agricultural windrows and have limited wildlife value. However, because the long-term survival rate of replacement trees is usually less than 100%, we recommend a replacement ratio of 2:1.

- Further, the Department discourages the planting of non-native trees. We therefore recommend the replacement trees be native sycamore, oak, or other large native tree species. Trees should be monitored, nurtured, and protected within the dripline, for a minimum of 5 years. We recommend that this monitoring be added to the Biological Resources Mitigation Implementation and Monitoring Plan, described on page 4.8-55 of the RDEIR.

S003-4

Impacts to Nesting Birds

- All migratory nongame native bird species are protected by international treaty under the Federal Migratory Bird Treaty Act (MBTA) of 1918 (50 C.F.R. Section 10.13). Sections 3503, 3503.5 and 3513 of the California Fish and Game Code prohibit take of birds and their active nests,

S003-5

S003-2 Continued

S003-3
Section 4.8 has been updated to include an analysis of impacts on wildlife resources for the Center Road Valve Station.

S003-4
MM TerrBio-2f and MM TerrBio-2g in Section 4.8.4 have been updated to incorporate the recommendations on tree replacemnt ratio and native species.

S003-5
Section 4.8.4 discusses nesting seasons for bird species of concern, and notes when construction would be prohibited during the nesting season.

including raptors and other migratory nongame birds, as listed under the MBTA. Mitigation measures specific to nesting birds were not proposed in the RDEIR.

- The Department recommends that proposed tree removal activities should take place outside of the breeding bird season of February 1 - August 31 to avoid take (including disturbances which would cause abandonment of active nests containing eggs and/or young). In years where nesting occurs later than usual, young birds may not fledge until after this period; until the young have fledged take must be avoided.

- If project activities cannot avoid the breeding bird season, pre-construction nest surveys and burrowing owl surveys should be conducted no more than 30 days prior to any ground-disturbing, project-related construction activity, following accepted protocols and survey periods. If active nests are found, the Department recommends avoidance of impacts by requiring the establishment of appropriate buffers and/or nest monitoring by a qualified biologist. The minimum size of the buffer should be determined by a qualified biologist in consultation with the Department.

- No construction activity should commence within a buffer area until a qualified biologist confirms that the nest is no longer active or consultations with the Department specifically allow certain construction activities to continue.

Impacts to Sensitive Biological Resources

- The California horned lark (Eremophila alpestris actia) is a State Special Concern Species. The Department's California Natural Diversity Data Base contains a record of California horned larks occurring 1.5 miles east of the proposed Center Road pipeline ROW. The California horned lark does not appear in Table 4.8-3b, Special Status Wildlife Species, and should be included as having potential to occur within the project area.

Streambed Alteration Permitting

- The proposed pipeline installation across and/or underneath streambeds will require application for a Streambed Alteration Agreement (SAA) under Section 1600 of the California Fish and Game Code. You may call our San Diego office at (858) 636-3160 to initiate the 1600 process. You may also obtain an application package online by visiting the Department's website at http://www.dfg.ca.gov/1600/1600.html. The Department emphasizes that in order to protect sensitive resources, substantial

S003-5 Continued

S003-6

S003-7

S003-8

S003-5 Continued

S003-6
The Applicant would comply with the California Department of Fish and Game requirements cited in the comment. The Biological Resources Mitigation Implementation and Monitoring Plan (AM TerrBio-2b) in Section 4.8.4 addresses construction activities during bird breeding season.

S003-7
California horned lark was added to Table 4.8-3b, in response to the comment.

S003-8
Table 4.8-10 in Section 4.8.2 and Impacts TerrBio-1 and TerrBio-3 in Section 4.8.4 identify the requirement for a Streambed Alteration Agreement.

revisions to the proposed project may be required in the SAA. We therefore strongly recommend the 1600 process be initiated prior to final adoption of the RDEIR.

S003-8 Continued

Marine Resources

Ichthyoplankton

- The Department remains concerned about the impingement and entrainment of marine organisms associated with the proposed project. However, due to the lack of sufficient site specific data to quantify those impacts, we cannot make any specific comments or recommendations at this time. Additional site specific studies to further identify project impacts may be warranted.

S003-9

We thank you for the opportunity to provide these comments. If you have any questions or need additional information, please contact the following personnel. For questions on terrestrial environmental concerns please contact Ms. Morgan Wehtje, Senior Environmental Scientist, South Coast Region, at telephone (805) 491-3571 or Mr. Martin Potter, Wildlife Biologist, South Coast Region, at telephone (805) 640-3677. For questions on marine environmental concerns please contact Ms. Marilyn Fluharty, Environmental Scientist, Marine Region, at telephone (858) 467-4231.

Sincerely,

Kevin Hunting, Chief
Habitat Conservation Planning Branch

cc: Department of Fish and Game
Joseph Vincenty, HCPB, Sacramento
Jack Geck, OSPR, Sacramento
Ryan Todd, OSPR, Sacramento
Morgan Wehtje, R5, Santa Barbara
Martin Potter, R5, Ojai
Scott P. Harris, R5
Marilyn Fluharty, MR, San Diego

S003-8 Continued

S003-9
Site-specific data are not available. After consultation with NOAA and marine biology experts, the use of the CalCOFI database was determined to be appropriate for the purposes of the analyses contained in this EIS/EIR. CalCOFI surveys have been consistently collected over a period of time and are the best scientific data currently available.

S212

State of California • The Resources Agency
Arnold Schwarzene
DEPARTMENT OF PARKS AND RECREATION
Ruth Coleman, *Director*
911 San Pedro Street
Ventura, CA 93001
805/585-1850 Fax 805/585-1857

May 11, 2006

RECEIVED
MAY 11 2006
STATE CLEARING HOUSE

clear 5-12-06 C

DPLA Environmental Review Unit
California Department of Water Resources
P.O. Box 942836
Sacramento, CA 94236-001

Re: Cabrillo Port Liquefied Natural Gas (LNG) Deepwater Port
Draft Environmental Impact Report, SCH #2004021107

The proposed construction of the Cabrillo Port LNG Deepwater Port and its Draft EIR for this project has generated substantial discussion within the communities where it is proposed to be located. The purpose of this letter is to address specific issues that California State Parks, Channel Coast District believes are critical to bring forward at this time. It is as a property owner and manager of land immediately adjacent to, and possibly through, Mandalay Shore Crossing Alternative traverse that the following concerns are raised:

- The maps for the Mandalay Shore Crossing Alternative identify the areas of Mandalay State Beach and McGrath State Beach in the area of influence of the project yet in much of the document very little discussion or evaluation of possible impacts seems to occur. Given the nature for these properties and the purposes for which they were purchased and set aside as State Parks, we believe a more detailed evaluation of potential impacts must occur. S212-1
- When discussing the Mandalay Shore Crossing alternative the Draft EIR references that the pipeline will be located within existing ROW yet the location and adequacy of the ROW for both construction and operation needs is unclear. Additional detail should be included within the document. S212-2
- The Draft EIR identifies the number of workers needed for the Onshore construction project yet does not identify where the workers will be housed or the location site for equipment, material staging or parking for workers during the Onshore portion of the project. This level of definition is provided for the Offshore work and should be provided for the Onshore work. S212-3
- Day and overnight recreational use patterns and visitor populations using Mandalay State Beach and McGrath State Beach do not appear to be reflected in the full range of evaluative discussions for potential construction and operation impacts. In addition, it appears that long-term impacts related to enjoyment of the coastal viewshed by park visitors have been omitted from the analysis. S212-4
- The parks, the natural resources within the parks, our park visitors and park staff do not appear to be recognized in the scenarios that address Safety Risk Assessment for any alternative. This oversight should be addressed. S212-5
- The EIR must adequately address potential impacts to the Santa Clara River specifically the State designated Santa Clara River Estuary Natural Preserve and S212-6

2006/S212

S212-1
Section 3.4.2 contains information on the Mandalay shore crossing alternative, which is analyzed by resource as applicable, in Chapter 4 sections under the heading "Alternative DWP Location Santa Barbara Channel/Mandalay Shore Crossing/Gonzales Road Pipeline."

S212-2
As described in Section 3.4.2, existing ROWs would be used for both offshore and onshore pipelines. As described in Section 2.4, the precise location of the onshore pipeline alignments would not be known until detailed engineering and substructure research would be performed and mapped onto the alignment drawings. As discussed in Section 4.13.2.1, franchise agreements with local municipalities grant SoCalGas the right to install pipelines within existing ROWs.

S212-3
Section 4.16.1.2 discusses the projected onshore workforce and housing. Table 4.16-7 provides the vacancy rates in the Project area. Tables 4.16-8 and 4.16-9 provides a lists temporary accommodations and camping areas that would be available in the Project area.

Section 2.1 and Table 2.1-4 provide the size of the temporary staging areas for construction. The exact locations of the staging areas are not known at this time, but there are stipulations throughout the document as to where they can be located. These include that a staging area cannot be located within any watercourse crossing. As described in Section 2.3.2, "[t]he HDB staging area would be located on disturbed (previously occupied) land." Impact TRANS-3 in Section 4.17.4 contains information on parking for the construction work force.

Section 3.4.2 discusses the construction method for the Mandalay Shore Crossing Alternative: "Similar to the proposed Project, it is assumed that the alternative shoreline crossing would be accomplished with HDB." NEPA and the CEQA do not dictate an amount of information to be provided but rather prescribe a level of treatment, which may in turn require varying amounts of information to enable reviewers and decision-makers to evaluate and compare alternatives.

S212-4
Section 4.15.5.2 contains revised information on nearby beach use and the recreation-related visual impacts on users at these parks. As stated in Section 4.15.5.2, "(t)he shore crossing would involve

HDB activities located between McGrath State Beach and Mandalay Beach Park and connection to the Reliant Energy Mandalay Generating Station. The construction across the beach would result in construction activities and impacts similar to the activities and impacts of the proposed shore crossing at Ormond Beach." See REC-4 through REC-6 in Section 4.15.4 for a discussion of onshore recreational impacts.

Section 4.4.4 contains information regarding visual impacts on coastal viewsheds.

S212-5
Section 4.2.9.2 has been revised with a discussion of mitigation measures that would apply to the Mandalay Shore Crossing Alternative.

S212-6
Section 4.8.5.2 describes habitat at McGrath Lake and the Santa Clara Estuary Natural Preserve and contains revised information on impacts at the alternative shore crossing. Habitat impacts at the lake and the river estuary would not occur from Project construction activities because of the distance from the alternative pipeline right of way.

McGrath Lake, the single remaining backdune coastal lake in Southern California.

- Both Mandalay State Beach and McGrath State Beach provide habitat actively used by Western Snowy Plover and California Least Tern for nesting. As the Draft EIR states these birds are both special status species yet potential impacts to the habitat of these birds is inadequately addressed for the Mandalay Shore Crossing Alternative.
- Both Mandalay State Beach and McGrath State Beach provide habitat for the Ventura Marsh Milkvetch. As the Draft EIR states this plant is a special status species yet potential impacts to its habitat is inadequately addressed for the Mandalay Shore Crossing Alternative.

S212-6 Continued

S212-7

The mission of California State Parks charges me, as the District Superintendent, with the responsibility to ensure that the preservation of "the State's extraordinary diversity protecting its most valuable natural and cultural resources and for creating opportunities for high quality outdoor recreation" within the Channel Coast District park units. Mandalay and McGrath State Beaches attract hundreds of thousands of visitors each year who seek to enjoy a coastal recreation experience. These park units contain miles of beach and dune habitat. McGrath SB offers the unique experiences of both the Santa Clara River Estuary and McGrath Lake. The resources here are precious and finite. Any project alternative that has the potential to impact or threaten the State Park's ability to steward these parklands for future generations should not receive further consideration.

S212-8

S212-9

For questions or for discussion of concerns raised in this letter you may contact Barbara Fosbrink, Technical Services Chief for Channel Coast District at (805) 585-1848 or me at (805) 585-1847.

Sincerely,

Richard A. Rojas
District Superintendent

cc. Rick Rayburn, Chief, California State Parks, Natural Resource Division
Ron Shafer, Superintendent, California State Parks, Angeles District
Diane Noda, District Manager, USFWS, Ventura Office
Morgan Wehjte, Manager, California Department of Fish and Game
Barbara Fosbrink, Technical Services Chief, California State Parks, Channel Coast District

S212-6 Continued

S212-7
Section 4.8.5.2 contains updated information on these species for the Mandalay Shore Crossing Alternative route.

S212-8
Thank you for the information.

S212-9
Your statement is included in the public record and will be taken into account by decision-makers when they consider the proposed Project.

STATE OF CALIFORNIA — THE RESOURCES AGENCY ARNOLD SCHWARZENEGGER, *Governor*

CALIFORNIA ENERGY COMMISSION
1516 NINTH STREET
SACRAMENTO, CA 95814-5512

S205

May 11, 2006

Dwight E. Sanders, Chief
California State Lands Commission
Division of Environmental Planning and
Management
100 Howe Avenue, Suite 100-South
Sacramento, CA 95825-8202

RE: REVISED DRAFT ENVIRONMENTAL IMPACT REPORT (DEIR) FOR CABRILLO PORT LIQUEFIED NATURAL GAS (LNG) DEEPWATER PORT (STATE CLEARINGHOUSE #2004021107)

Dear Mr. Sanders:

The California Energy Commission staff has reviewed the Revised DEIR for the Cabrillo Port LNG Deepwater Port project and offers the following comments in the areas of air quality and public safety.

Air Quality

The Revised DEIR provides information that Ventura and Los Angeles counties are non-attainment of both the National and California ambient air quality standards (standards) for ozone, and that the Channel Islands and Ventura and Los Angeles counties are non-attainment of the California standards for particulate matter (PM) less than 10 and 2.5 microns in diameter (PM10 and PM2.5). Further, the Revised DEIR documents the quantities of ozone precursors (nitrogen oxides and reactive organic compounds) and PM and PM precursors (nitrogen oxides, reactive organic compounds, and sulfur oxides) emissions from the project and associated equipment and processes. These emissions have the potential to adversely affect air quality in these non-attainment areas, and as such, should be mitigated.

S205-1

The applicant describes a credible air pollution reduction program that includes the use of clean fuels and best available control technologies (BACT) to control emissions of project vessels, equipment and processes. Additionally, the applicant has committed to offsetting some of the air pollutant emissions despite the U.S. Environmental Protection Agency (USEPA) finding that the offshore project components fall under the jurisdiction of the Channel Islands and not the mainland air quality districts, and that the project needs neither a New Source Review nor Prevention of Significant Deterioration permit. Thus according to the Revised DEIR, the applicant is not required to provide offsets for the project's potential operational emissions impacts.

As stated in the Revised DEIR, the California Air Resources Board is concerned that emissions from the project's offshore activities can reach the California coastline and

S205-1
The Project has been modified since issuance of the March 2006 Revised Draft EIR. See Section 1.4.2 for a summary of Project changes. Section 4.6.1.3 contains revised information on Project emissions and proposed control measures. Section 4.6.4 discusses the health effects attributed to air pollutants and includes revised impacts and mitigation measures.

add to the air pollution burden of downwind regions like the South Coast Air Basin. The Energy Commission staff notes that the Energy Commission has consistently required when licensing power plants under our jurisdiction that project applicants fully offset all non-attainment criteria pollutant emissions. We believe such offset requirements are appropriate for this project but defer to the recommendations of the California Air Resources Board and the local air districts.

Energy Commission staff commends the applicant for their willingness to mitigate some of the project's potential emission impacts. We recommend the early and specific identification of sources used to provide offsets to allow the public and various agencies to assess their effectiveness in mitigating some of the project's potential impacts. Accordingly, we believe that the applicant's proposed mitigation measure, AM AIR-4a, should be modified to identify the specific emission reduction sources and programs that will be used to offset the project's NOx emissions. We have provided some possible examples of emission reduction sources and programs in a modified (underline/strikeout) version of AM AIR-4a.

AM AIR-4a. Emission Reduction Programs. As part of air permit-to-construct application procedures, the Applicant has committed to the USEPA, the CARB, and local air districts to ~~identify a~~ provide suitable emission reductions ~~program~~ (in addition to reductions inherent to the Project) ~~that would reduce annual emissions of NO$_x$~~ by an amount up to the FSRU's annual NO$_x$ emissions of 273.5 tons/year via the following emission reduction sources or programs:

- Retrofit diesel powered school buses with particulate traps or oxidation catalysts (NOx, VOC, PM10);
- Retrofit diesel powered tugboats with new, cleaner diesel engines (NOx, SOx, CO, VOC, PM10);
- Replace existing diesel school buses with new alternative-fueled school buses (i.e., CNG engines) (NOx, PM10);
- Repower off-road heavy-duty diesel equipment with new lower-emission diesel engines equipped with particulate traps (PM, NOx);
- Replace portable diesel generators with microturbines (PM, NOx);
- Provide low-sulfur diesel fuel to local passenger locomotives (SOx, PM10);
- Provide low-sulfur diesel fuel to local private diesel heavy-duty truck fleets (SOx, PM10);
- Expand low emission fuel options such as liquefied natural gas refueling infrastructure (NOx, PM10, SOx);
- Purchase of fuel cells and electrification usage with ships at the dock (all pollutants); and/or
- Procure sufficient emission reduction credits at the mainland air districts to fully offset the project emission increases on 1.2:1 ratio.

S205-1 Continued

S205-1 Continued

S205-2
AMs are Applicant measures that are part of the proposed Project. The Project has been modified since issuance of the March 2006 Revised Draft EIR. See Section 1.4.2 for a summary of Project changes. The text of AM AIR-4a has been revised to reflect these changes.

S205-2

The Energy Commission is respectfully directed to the Governor with these recommendations. The Governor may include these as conditions of the license to the Maritime Administrator

The target amount of NOx emission reduction is based on Tables 4.1-12, -13 and -14. Except for bulleted item number 2 above, the proposed emission reduction sources and programs are taken directly from the February 16, 2006 South Coast Air Quality Management District Initial Study regarding the proposed amendment of their Rule 1309.1. Our suggested revisions to AM AIR-4a are only meant as demonstrations of the changes that we believe are necessary. The actual condition should include a specific target reduction amount, a list of preferred reduction proposals (including a contingency if all the proposals fail), a reporting requirement, and the procedure for calculating emission reductions achieved.

Please note that staff believes that the conclusion regarding the efficacy of AM AIR-4a (page 4.6-33, lines 30-33) to "reduce impacts to below significance criteria[.]" is not supported by the discussion and mitigation measures. Both NOx and ROCs are identified as potential ozone precursors, but the measure and discussion only address NOx and its contribution to onshore ozone. Staff recommends that the conclusion (lines 32 – 33) be deleted and that the discussion be limited to mitigation of NOx contribution to onshore ozone. Additionally, some of the mitigation measures listed above will provide PM and PM precursor emission reductions that could be used to mitigate the project's potential PM impacts.

Mitigation Measure (MM) AIR-5c Consultation with CARB to Identify Emission Reduction Opportunities. Since emission reductions have not yet been identified, staff concurs that "this impact from the Project, as presently proposed, cannot be determined at this time." [page 4.6-35 lines 28 and 29]. Staff encourages the early and specific identification of emission reductions as potential mitigation to address this uncertainty.

Public Safety

As stated on page 4.2-28 of the Revised DEIR, the U.S. Coast Guard (USCG) has developed post-9/11 security measures to prevent hijacking of any vessel carrying hazardous cargo and to stop (i.e., interdict) such hijacked vessels before they can approach shore. According to the document, these security measures will be included in the security plan for the FSRU operations. This plan will be provided to appropriate Federal, State, and local agencies and elected officials with safety and security responsibilities and clearances.

Page ES 12 of Volume II, Appendix C1 of the Revised DEIR states that the Port Security Plan will include measures to "Monitor all vessels on approach to the FSRU within a certain range using all reasonable means." This statement addresses, in part, staff's concern regarding takeover and use of a vessel as a weapon. Procedures should also specify protocols for notification of the USCG. The objective of this monitoring should be to detect any unexpected action by the vessel as quickly as possible. Development of highly effective procedures will provide the maximum time for interdiction by the USCG.

S205-2 Continued

S205-2 Continued

S205-3

Impact AIR-4 and Impact AIR-5 in Section 4.6.4 have been revised to provide specific information regarding the Applicant's emissions reduction programs and their review by the USEPA and the California Air Resources Board (CARB). As part of air permit-to-construct application procedures, the Applicant has committed to the USEPA to achieve emissions reductions (in addition to reductions inherent to the Project) to an amount equal to the FSRU's annual NO_X emissions. The Applicant has executed contracts to retrofit two marine vessels (long haul tugs) by replacing the propulsion engines of each vessel with modern low emitting engines (Tier 2 compliant diesel-fired engines). At the request of the USEPA and the CARB, the Applicant conducted source testing to assist in determining the emission reductions expected as a result of the retrofits. Both the USEPA and the CARB have reviewed the results, but there is not yet a consensus on the estimated emission reductions from the mitigation proposal.

S205-3

Based on the USEPA's and CARB's estimates, the proposed Emissions Reduction Program (AM AIR-4a) would provide for NO_X emission reductions greater than the estimated annual NO_X emissions from FSRU equipment and estimated NO_X emissions from operation of LNG carrier offloading equipment. However, the total emission reductions would be less than the annual NO_X emissions estimated for all operations (FSRU and Project vessels) in California Coastal Waters, as defined by the CARB. According to CARB, the emission reduction proposal "represents more than what would otherwise be required by the current determination of applicable regulations."

S205-4

Appendix G9 contains a memorandum from the CARB to the CSLC on this topic. Electronic copies of the Applicant's reports submitted to the USEPA that detail the tug retrofits and related emission reductions are available at www.epa.gov/region09/liq-natl-gas/cabrillo-air.html.

S205-4

The Applicant would be required to develop a deepwater port security plan in accordance with 33 CFR 150.15(x) of the Deepwater Ports Final Rule (September 29, 2006), which stipulates that the security plan must include security procedures comparable to those required in 33 CFR 106. Therefore, in accordance with 33 CFR 106.240, an integral part of the plan will be communications procedures that "effectively notify...facility personnel of changes in

security conditions at the...facility" (e.g., an unexpected action by an approaching vessel or aircraft) and that also "allow effective and continuous communications between...facility security personnel, vessels interfacing with the...facility, the cognizant [USCG] District Commander, and national and local authorities with security responsibilities." See also Table 4.2.2 in Section 4.2 and Appendix C3-2.

S205-4 Continued

In light of the maximum speed of the vessels, the distance to shore, and the distance to which impacts could extend, it is essential that such monitoring be continuous and that USCG notification of deviation from expected behavior be immediate. The distance from shore where such continuous monitoring will commence should also be specified. In addition, all procedures for interdiction of aberrant vessels should be finalized and clarified prior to operation of the FSRU.

S205-4
Continued

We wish to thank you for this opportunity to comment on the Revised DEIR for the proposed Cabrillo Port LNG Deepwater Port project. Should you have any questions regarding our comments, please call Terrence O'Brien, Deputy Director of the Systems Assessment & Facilities Siting Division, at (916) 654-3924, or Eric Knight, Energy Facilities Siting Project Manager, at (916) 653-1850.

Sincerely,

B. B. BLEVINS
Executive Director

STATE OF CALIFORNIA—BUSINESS, TRANSPORTATION AND HOUSING AGENCY ARNOLD SCHWARZENEGGER, Governor

DEPARTMENT OF TRANSPORTATION
DISTRICT 7, REGIONAL PLANNING
IGR/CEQA BRANCH
100 MAIN STREET, MS # 16
LOS ANGELES, CA 90012-3606
PHONE: (213) 897-3747
FAX: (213) 897-1337

S202

Flex your power!
Be energy efficient!

IGR/CEQA No. 060327AL, Revised DEIR
Referenced to IGR/CEQA No. 041102AL
Cabrillo Port Liquefied Natural Gas
Deepwater Port
Vic. Ven-County Wide
SCH # 2004021107

March 20, 2006

Mr. Dwight E. Sanders
California State Lands Commission
100 Howe Avenue, Suite 100-South
Sacramento, CA 95825

Dear Mr. Sanders:

Thank you for including the California Department of Transportation (Caltrans) in the environmental review process for the above referenced project. We have the following comments after we received the Revised DEIR.

We would like to remind you that any work to be performed within the State Right-of-way will need an Encroachment Permit from the California Department of Transportation. S202-1

Storm water run-off is a sensitive issue for Los Angeles and Ventura counties. Please be mindful that projects need to be designed to discharge clean run-off water. S202-2

Any transportation of heavy construction equipment and/or materials which requires the use of oversized-transport vehicles on State highways will require a Caltrans transportation permit. We recommend that large size truck trips be limited to off-peak commute periods. In addition, a truck/traffic construction management plan is needed for this project. Thank you for the opportunity to have reviewed this project. S202-3

If you have any questions, please feel free to contact me at (213) 897-3747 or Alan Lin the project coordinator at (213) 897-8391 and refer to IGR/CEQA No. 060327AL.

Sincerely,

Cheryl J. Powell

CHERYL J. POWELL
IGR/CEQA Branch Chief

"Caltrans improves mobility across California"

S202-1
If the Applicant were to receive a license for the deepwater port from MARAD and a lease from CSLC, the Applicant, or its designated representative, would be required to adhere to all applicable local, State, and Federal laws, regulations, and permit requirements in the execution of all phases of the Project. Permits required are listed in Section 1.6.

S202-2
Sections 1.6, 2.7.2.1, 4.8.4, 4.12.4, 4.18.2, and 4.18.4 discuss this topic.

S202-3
Sections 1.6, 4.17.2, and 4.17.4 discuss CalTrans permits.

STATE OF CALIFORNIA

Governor's Office of Planning and Research

State Clearinghouse and Planning Unit

S211

Arnold Schwarzenegger
Governor

Sean Walsh
Director

May 15, 2006

Dwight E. Sanders
California State Lands Commission
100 Howe Avenue, Suite 100-South
Sacramento, CA 95825-8202

Subject: Cabrillo Port Liquefied Natural Gas (LNG) Deepwater Port
SCH#: 2004021107

Dear Dwight E. Sanders:

S211-1

The State Clearinghouse submitted the above named Draft EIR to selected state agencies for review. On the enclosed Document Details Report please note that the Clearinghouse has listed the state agencies that reviewed your document. The review period closed on May 12, 2006, and the comments from the responding agency (ies) is (are) enclosed. If this comment package is not in order, please notify the State Clearinghouse immediately. Please refer to the project's ten-digit State Clearinghouse number in future correspondence so that we may respond promptly.

Please note that Section 21104(c) of the California Public Resources Code states that:

> "A responsible or other public agency shall only make substantive comments regarding those activities involved in a project which are within an area of expertise of the agency or which are required to be carried out or approved by the agency. Those comments shall be supported by specific documentation."

These comments are forwarded for use in preparing your final environmental document. Should you need more information or clarification of the enclosed comments, we recommend that you contact the commenting agency directly.

This letter acknowledges that you have complied with the State Clearinghouse review requirements for draft environmental documents, pursuant to the California Environmental Quality Act. Please contact the State Clearinghouse at (916) 445-0613 if you have any questions regarding the environmental review process.

Sincerely,

Terry Roberts

Terry Roberts
Director, State Clearinghouse

Enclosures
cc: Resources Agency

1400 TENTH STREET P.O. BOX 3044 SACRAMENTO, CALIFORNIA 95812-3044
TEL (916) 445-0613 FAX (916) 323-3018 www.opr.ca.gov

S211-1
Thank you for the information.

Document Details Report
State Clearinghouse Data Base

2006/S211

SCH# 2004021107
Project Title Cabrillo Port Liquefied Natural Gas (LNG) Deepwater Port
Lead Agency California State Lands Commission

Type EIR Draft EIR

Description Installation/operation of LNG deepwater port 12.01 nautical miles (13.83 miles) offshore, two 22.77 mile, 24" natural gas pipelines to Reliant Energy Facility at Ormond Beach, two onshore natural gas pipeline segments-the Center Road Pipeline (14.7 miles) in Oxnard area, Ventura County and Line 225 Loop Pipeline (7.7 miles) in Santa Clarita, Los Angeles County- and related facilities to distribute natural gas through existing Southern California Gas Company infrastructure.

Lead Agency Contact

Name Dwight E. Sanders
Agency California State Lands Commission
Phone (916) 574-1880 **Fax**
email
Address 100 Howe Avenue, Suite 100-South
City Sacramento **State** CA **Zip** 95825-8202

Project Location

County Ventura, Los Angeles
City Oxnard, Santa Clarita
Region
Cross Streets Numerous
Parcel No.
Township **Range** **Section** **Base**

Proximity to:

Highways
Airports
Railways
Waterways
Schools
Land Use Multiple

Project Issues Aesthetic/Visual; Agricultural Land; Air Quality; Archaeologic-Historic; Biological Resources; Coastal Zone; Economics/Jobs; Forest Land/Fire Hazard; Geologic/Seismic; Minerals; Noise; Population/Housing Balance; Public Services; Recreation/Parks; Schools/Universities; Soil Erosion/Compaction/Grading; Solid Waste; Toxic/Hazardous; Traffic/Circulation; Vegetation; Water Quality; Water Supply; Wetland/Riparian; Wildlife; Growth Inducing; Landuse; Cumulative Effects; Other Issues

Reviewing Agencies Resources Agency; Department of Boating and Waterways; California Coastal Commission; Department of Conservation; Department of Fish and Game, Region 5; Department of Fish and Game, Marine Region; Department of Parks and Recreation; Office of Emergency Services; California Highway Patrol; Caltrans, District 7; Department of Health Services; Regional Water Quality Control Board, Region 4; California Energy Commission; Native American Heritage Commission; Public Utilities Commission; Department of Water Resources

Date Received 03/13/2006 **Start of Review** 03/13/2006 **End of Review** 05/12/2006

Note: Blanks in data fields result from insufficient information provided by lead agency.